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ABSTRACT

This book discusses international education and the emergence of Pennsylvania's Partnership for International Competence (PPIC), a partnership that evolved to guarantee that Pennsylvania remains a major actor in the world economy. Individuals from the corporate, labor, educational, and government sectors contributed articles to the areas of discussion. Section 1 includes 10 articles on the various perspectives of these different sectors towards developing international competencies for Pennsylvania, and how that development will impact upon Pennsylvania education, trade, private industry, global views, and policy planning. Section 2 is a short history of the Pennsylvania Council for International Education, founded in 1971, and devoted to the development of international education through the public and private educational structure in Pennsylvania. Section 3 discusses the dimensions of the task of developing international competence. Section 4 includes six views representing the various sectors that make up the PPIC, and what each sector can contribute to that partnership. Section 5 includes 30 articles discussing several initiatives and programs that will contribute to the development of international competency in the areas of geography and life sciences, languages, history, basic education, higher education, basic/higher education collaborations, education/business networking, and education and communication/technology. A blueprint for the development of an internationally competent Pennsylvania and a list of 12 additional resources conclude this collection. (PPB)

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EDUCATION FOR INTERNATIONAL COMPETENCE IN PENNSYLVANIA

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Commonwealth of Pennsylvania
Robert P. Casey, Governor

Department of Education
Thomas K. Gilhool, Secretary

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INTRODUCTION

Andrew Dinniman
and
Burkart Holzner

In several of the older offices in the Capitol Building in Harrisburg hang maps, which across the top read, "Pennsylvania: Workshop for the World." This book discusses international education and the emergence of Pennsylvania's Partnership for International Competence, a partnership that has evolved to guarantee that Pennsylvania remains a major actor in the world economy. While the notion of partnership will provide the framework for material in this book, the emphasis will be on the role of education in the partnership. Education is the means through which American citizens can gain international knowledge—knowledge that provides us with competencies for economic success. The world economic order has shifted and continues to change; an understanding of these changes is essential if Pennsylvania is to remain a "Workshop for the World."

As we examine international education in Pennsylvania, a series of questions comes to mind. What type of knowledge do Pennsylvania businesses need to successfully compete? Certainly, this knowledge should include the language, history, culture, geography, climate, marketing distribution system, style of business negotiation, and consumer preferences of those nations in which we plan to market and sell Pennsylvania products. What types of knowledge and skills do American workers need? The list should include an understanding of the new international economic system and how it affects American workers; the importance of working in teams; and the reading, mathematical and analytical skills that enable workers to adapt to changing technologies.

When we speak of international economic competitiveness, in a real sense we are talking about the competition between educational systems. In the United States, where education is a state responsibility, each state will help determine the national response to this competition. American education is competing with other educational systems in three different, but interrelated ways. First is the capacity to do research and to develop and rapidly transfer technology evolving from that research. Second is the ability to teach basic reading, writing, quantitative, and analytical skills to all citizens, so that each can contribute more effectively in the workplace and in societal institutions. Third is what we can call international knowledge, that is, an understanding of the internationalization of the contemporary economic order and knowledge of the language, culture, and markets of other parts of the world in which we want to sell

our products and services; in essence, it is an understanding of our potential customers.

In order to succeed economically, these three aspects of education must be strengthened. While this book refers to all three, its special concern is with the international knowledge through which American businesses, workers, and governmental agencies will acquire the competencies necessary for international economic success, leading to prosperity in Pennsylvania. Of special concern also is the development of the partnership structure through which this knowledge can be nurtured and effectively shared with business, labor, and government.

In a study for the New England Board of Higher Education, Sven Groennings has pointed out, in regard to our competition with Japan, that "The United States is in competition not only with an economic system but also with a learning system." Part of that learning system is the ability to master international knowledge, a mastery that has allowed the Japanese to succeed in the United States market far better than we have succeeded in the Japanese market. Groennings notes, however, that a mastery of international knowledge can also work to the advantage of the United States. After examining American firms that have a record of success in the Japanese market, Groennings concludes: "It is possible to generalize about the requisites of success. The successful have learned to work cross-culturally with Japanese values and processes and to shape the products to suit the Japanese market....Massive evidence sustains the basic point: one must understand the Japanese culture to work successfully in Japan's business environment."

In terms of organization, this book is divided into six sections. The first records portions of the remarks made by major speakers at an October 1987 conference at the Pennsylvania Department of Education. Entitled "International Education: Keystone for Economic Success," the conference was an important initial step in the development of the Pennsylvania Partnership for International Competence. It began a dialogue between representatives of education, business, labor, and government on the importance of international education as a key ingredient for Pennsylvania's success in world markets. This book is an effort to further that dialogue.

While the movement for international education in Pennsylvania has taken on increased energy within the last year, the work of those involved in international education over the last twenty years should also be recognized. We need to realize that Pennsylvania has a solid base upon which to build its international education movement. In section two, David Gray, Executive Director of the Pennsylvania Council for International Education (PaCIE) and one of the "elder statesmen" of international education in Pennsylvania, provides us with a history of PaCIE over the last twenty years.

The book next turns to the question of identifying specific competencies. It attempts to answer the question, "What types of international competencies do students need to attain and at what level of education?" For example, what should every undergraduate know? How does this differ from the competencies required of a student completing an MBA degree? What international skills does an engineering student need? These questions, of course, can involve basic education as well as higher education. We also need, through some form of continuing education, to increase the international knowledge base of those already out in the field. It is not the intent of this section to provide definitive answers to questions of appropriate levels of competencies. Rather, it sets the framework in which such questions can be raised and offers some tentative answers.

As noted earlier, this book seeks to encourage the further evolution of a partnership through which international knowledge can be nurtured and utilized by the partners. While the major focus is on education's role in the partnership, it is important to examine the expectations of each member. Thus, the fourth section provides a stage upon which five key actors can explore their respective roles in Pennsylvania's Partnership for International Competence. Representatives of these five partners—business, labor, government, basic education and higher education—state what they and the other members must bring to the partnership for it to be successful.

It is important to realize that partnerships do not occur with a simple snap of the fingers. Rather a sense of common purpose, trust and an understanding of each other's needs and environments must be developed. This section contributes to an understanding of the dynamics of building partnerships.

In terms of its higher education infrastructure, Pennsylvania is indeed fortunate to have a strong knowledge base for international education. Section five describes this knowledge base and the way higher education has begun to share its international knowledge with basic education and business. Basic education, on its own and in collaboration with higher education, has developed an array of meaningful programs and initiatives. This section also describes some of these basic education initiatives, including the Pennsylvania Governor's School for International Studies, and the nationally recognized international studies programs at Schenley High School in Pittsburgh and Bodine High School in Philadelphia. As you read these essays, you will come away impressed with the efforts already underway in Pennsylvania. It is important to note also that part of Pennsylvania's international knowledge base comes from the state's rich and varied ethnic traditions.

If Pennsylvania's businesses and workers are to compete more effectively in the world marketplace, its international knowledge base must be supported and expanded. In addition, structures need to be developed for sharing this knowledge base with business, labor and government. Increased international competencies will evolve from such sharing. The final section of the book provides a blueprint for the future: a blueprint for Pennsylvania of possible means through which the knowledge base can be broadened and more effectively shared with business, labor, and government. In essence, it offers a strategy for strengthening the Pennsylvania Partnership for International Competence.

Increased exports mean more jobs in Pennsylvania and throughout America. While agricultural and service-related exports are important, it is manufacturing that accounts for the majority of exports. The sustaining and expansion of manufacturing is, in part, dependent on our international competence and ability to market our products around the world.

While international knowledge is an important basis for economic success, like all knowledge it has a value separate from any utilitarian purpose. Furthermore, international education provides a bridge of understanding between diverse peoples, a prerequisite for world peace.

SECTION 1

Perspectives

INTRODUCTION

The conference, "International Education: Keystone for Economic Success," brought together in the Pennsylvania Department of Education more than 300 leaders of Pennsylvania's government, business community, labor unions, universities and colleges, and schools on October 22, 1987. Even more people actually wanted to attend. The statewide interest in this conference was extraordinary, as was the strong sense of engagement and purpose that emerged.

This chapter offers perspectives by nine prominent Pennsylvanians who addressed the conference. Their remarks are a clear call for cooperative partnerships to achieve a true mobilization of resources for dramatic improvement in international education within the Commonwealth. These statements impart a well-defined awareness of technological change and opportunities, and the challenge of international business; they also reveal a pervasive concern with achieving peace.

As Speaker of the House of Representatives, K. Leroy Irvis, concluded: "In our technological society, we must prepare children for the next level of technical advances. In a world society, towards which we are now moving, the child must be prepared to live in a world society. Are we in the Keystone State preparing our children that way? Not yet, but we had better get started!"

Mark S. Singel
Lieutenant Governor
Commonwealth of Pennsylvania

Make no mistake; the education of our children is the single most important responsibility state government faces. An investment in Pennsylvania's educational structure is a direct contribution to our economic health and wealth. Pennsylvania's schools are on the front line.

Today the United States is involved in a complex world society, growing in interdependency. The expansion of service industries and the increased volume and availability of information has made it not just preferable, but imperative, that we arm our youth with the skills necessary to compete successfully in foreign markets. If we are to deal effectively with this new economy, we must educate our students, business people, and workers in geography awareness and in the languages, cultures, and practices of foreign countries that are potential markets for our goods and services.

The question is: What kind of legacy are we leaving Pennsylvania? We must encourage our young people and those already in the field not only to be competent, but to excel; not only to survive, but to succeed. Working together we can make it happen. The challenges are great, but so are the opportunities.

Under the dedicated leadership of Governor Casey, and Secretaries Gilhool and Wofford, I am confident that we will meet those challenges with excellence. The Casey/Singel Administration has launched a concerted, comprehensive effort to upgrade our educational offerings at all levels. As we raise our education standards, we also raise the earning power and productivity of our work force. Let us not forget that the steps we take today and in the near future will determine the quality of life for generations to come. We must not fail them.

In bringing all of our efforts and resources to bear on this important challenge, we can demonstrate the wisdom of the ancients, who advised: "If you plan for a decade, plant trees. If you plan for a century, teach the children."

Thomas K. Gilhool
Secretary of Education
Commonwealth of Pennsylvania

You have broken all records for the capacity of this room. Every report this morning indicates that you are in the process also of breaking records for ideas, imagination, wisdom, insistence, and for effective implementation. It is fitting that we break records here. Pennsylvania was the keystone among the colonies in the formation of this union, the keystone of the common schools in these United States, and the keystone in holding the union together. There is every reason for the Commonwealth of Pennsylvania to be the keystone of a closer, more peaceful world. This state has an unusually rich tradition of seriously attending to international education.

Last week I visited a remarkable high school in Unionville-Chadds Ford. Students in Helen Martin's classroom were engaged in learning, and I dare say teaching one another, about science in relationship to weather satellites that wend their way around the world and reveal a closeness that we can hope to approximate in human affairs. In that classroom there was notable engagement in the learning not only of science but of every other dimension of our world as well. The students were gathering evidence to convince the U.S. Congress and NASA that money idled because of the suspension of space flights should be used for work on weather satellites, the contributions they can make to overcoming famine and hunger, and for education. That class and some in the Chester-Upland School District are undertaking to join a series of satellite classrooms across continents.

Against the backdrop of Pennsylvania's traditions, the more than 70 languages spoken in the state, and the extraordinary potential of Pennsylvania today, it is a particular pleasure to announce that the Pew Memorial Trust and the Andrew W. Mellon Foundation have each awarded $200,000, and the Geraldine R. Dodge Foundation $20,000, to enable the Commonwealth Partnership to establish a foreign language study abroad program for secondary school teachers from throughout the Commonwealth of Pennsylvania. It is my hope that this grant marks a strong new beginning for the work of all of us in international education.

In his inaugural address, Governor Robert Patrick Casey challenged us to fundamentally change the focus of public education so that our children are prepared to meet the competition from, and to cooperate with, people from throughout the nation and around the world. Your own work heretofore and today will certainly enrich the command of Western culture among all school children in Pennsylvania. But for the sake of education, for the sake of this state's economic well-being, and for the sake of the world, it must also enrich our knowledge of languages and cultures from around the globe.

The Governor's charge to the Secretary of Education, and to all of us working in the field of education, is plain, parsimonious and profound: to improve teaching and learning so that no child is left behind. That charge has a special edge. The generations now in high school and grade school are the smallest since those born during the depression and the second world war. In 1992, for every retired person in the country there will be but three people at work; thirty years ago there were seventeen people at work for every retired person. This means that each one of these children must be so well taught, in basic education and beyond, that their individual gifts and talents are freed. This must be done not only for their own sake and that of their families, but for the well-being of the state and the entire nation.

Governor Casey has said that our schools will not be as great as we wish, indeed require, them to be unless and until every citizen of the Commonwealth takes a part in making them great. I have asked the presidents of Pennsylvania's colleges and universities to enter into a serious relationship with every high school in the state and, in time, with every junior high school, middle, and elementary school serving those high schools. I ask them to do so to increase the dismally low number of students going on to higher education and to help parents and families understand what higher education can mean to their children. I ask them to maintain the relationships long enough to enrich all parties and to create serious partnerships between faculty members in the high schools and the institutions of higher education.

Against the backdrop of these themes, I now want to ask each of you—from the schools and universities, from the unions and corporations, and from the foundations—to help us create an explosion

in learning of foreign languages and cultures by students across this Commonwealth. What we seek to do in forthcoming summers is to borrow from effective models of language and culture learning. We will seek to adapt the methods of the National Defense Foreign Language Institute and the Foreign Service Language Institute for summer programs. In language learning, particularly, the opportunity for concentration and intensive study is needed.

New technologies have opened extraordinary possibilities for learning. In my mind the question becomes how we can use these advances to enable children in our schools to learn French in conversations with children in Quebec, and to learn Spanish by talking with Spanish speakers here in the state, in other parts of the country, in Puerto Rico or Mexico. And why not learn Chinese the same way? I realized this as the students at Unionville-Chadds Ford that I mentioned earlier picked up the phone to call Geneva and Vienna. Naturally the phone was not answered by an English speaker, so someone went to the classroom door and the call went out into the hall, "Is there a French speaker around?"

I hope that such calls become commonplace in our schools, and that through imaginative use of technology and serious commitment by educators, we can significantly increase the opportunities for achieving command of foreign languages. I hope that in the not-too-distant future we arrive at the point where it is expected, in fact required, that every child who attends kindergarten through twelfth grade in this state will find themselves immersed in the study of a foreign language for at least four of those thirteen years. So my request to you, who are at the core of such teaching, is to reflect upon what part you might play in bringing about the explosion of foreign language and culture learning, utilizing the unique resources that we have at hand. Can you imagine what children attracted to learning can achieve and what this Commonwealth can become if we succeed in proliferating a command of the world's languages and cultures?

I greatly appreciate your presence here today. I thank you for the phenominal energy that you bring to this undertaking, and I look forward to its transformation of teaching and learning in our Commonwealth.

K. Leroy Irvis
Speaker, Pennsylvania House of Representatives

My interest in economic development is very basic; it is almost limited to making sure that people have a place to sleep and food to eat. Therefore I don't come here to talk to you only about economic development and the need for international education. I have a much deeper concern—about peace—that men and women around the world don't spend their lifetimes planning to destroy each other.

To my father, traveling from Poughkeepsie to New York City was a long distance. For me, traveling from Albany, New York, where I was raised and schooled, to Pittsburgh was a great distance—roughly 600 miles. Five years ago, I saw my 97-pound daughter swing a 90-pound bag over her shoulder, climb on board a 747, and casually fly to spend the summer in Spain. For her that distance meant nothing. For my grandchildren, moving around the entire world will be as casual as my father's trip from Poughkeepsie to Albany.

There is a young man of about 30 or 31 in my office whose name is Yi Wang. He is a native of mainland China, but he speaks English; however I don't speak Chinese. When I was studying French in junior high school, it made no sense whatsoever to me. Why was I ever going to need French? Of course I was interested in the history of France, how the French live; but I didn't see any reason to learn the language. The teacher I had didn't even speak and understand French. I realized that because a French woman came to visit our class, and our teacher couldn't understand her.

Let me tell you a true story. In April 1985 I stood in a remote airport in a French-speaking African country at 11 o'clock at night surrounded by five black men, each one carrying an assault rifle and asking me in broken English and French, "Are you a terrorist? What do you have in the bag? Why do you want to come here? Do you have friends here?" At that moment I wished I had studied French a little more. I finally managed to get something out in fractured French which got me through, into the cab, and safely away.

The point I am making is that you and I never know, and our children never know what knowledge is going to be required. But we can be sure that our children will need a lot more knowledge

than we ever did. We can be certain that if Pennsylvania is going to be truly an economic keystone, we had better begin learning much more about the other peoples of the earth: their cultures, their languages, their traditions, their beliefs.

The world has become so small that economic development in this country is tied to the economic welfare of all other countries. If you don't believe it, ask the Japanese in the stock market what happened to them after our own market fell. Think, those of you who are in your fifties, whether this country could ever again wage a world war the way it fought World War II. We're driving vehicles created by our former enemies. We don't have the steel to manufacture them ourselves, or the rails to transport them if we had the steel. I'm not complaining about that. It may well be that because we are inside the forest, we don't see the trees. We may be on the threshold of world peace solely because no nation by itself can any longer afford to wage war, not simply because of self-destruction but for economic reasons. It would be difficult to wage war against an economic partner upon whom you depend and who depends on you.

Perhaps that is the most important message of this conference: not only that we become a greater economic keystone state, but that we recognize that the peoples of the earth are so intertwined and so interwoven that we cannot afford to be ignorant of their wishes and needs, as they cannot be misinformed about ours. I assume that most of you call yourselves educators. If you don't you should because all adults, to one degree or another, are always educating the young, and sometimes we educate ourselves a bit in the process. I therefore call upon you to recognize that the main purpose of education—all others are subsidiary—is to prepare the child for adult life. In hunting societies, a child is prepared for that hunting society. In agricultural societies, children are prepared for life in an agricultural society. In our technological society, we must prepare children for the next level of technological advances. In a world society, towards which we are now moving, the child must be prepared to live in a world society. Question: Are we in the Keystone State preparing our children that way? Answer: Not yet, but we had better get started!

Harris Wofford
Secretary of Labor and Industry
Commonwealth of Pennsylvania

House Speaker K. Leroy Irvis has raised our sights to peace, the overriding question. The condition for economic success, whether for Pennsylvania, for the United States, or for the USSR is indeed peace. An international education, therefore, is not only the keystone for economic success, but it's the keystone for peace.

I have to warn you that when you ask me to say something about international education, you're pushing a very personal button: my experiences in India, Israel, Africa and Asia. What really started all this was my grandmother. When I was eleven, she and my parents bought tickets on a freighter to go around the world. She was a recent widow on a pension, and she found it cheaper to travel around the world on freighters than to have a New York apartment. Since she was deaf and lame, she asked me to take her around the world.

At age twelve I thought I was really performing a major service by taking my grandmother around the world for six or seven months. She planned it all. We saw Mahatma Gandi ride through the streets of Bombay while I had tonsillitis and couldn't get outside. We were in front of Mussolini's Piazza Venezia balcony when he took Italy out of the League of Nations in the fall of 1937. We were in a church in Bethlehem when a serious outbreak of Arab-Jewish fighting took place, and we had to huddle in the church for some hours of Christmas Eve. We camped in the desert with Arabs. I tried to teach them the Big Apple, and they taught me an Arab dance. We got to Shanghai just after the Japanese had destroyed and occupied the Chinese city.

The point is that by accident, through my grandmother, I had the great luck of having my experiences and loyalties expanded. This is not to diminish the educational experiences of the classroom or of books. In fact, if the educational principle involved in my story is the value of crossing cultural frontiers, I suspect that for many people it would be crossing a great cultural frontier to enter a library and open a book that would take them back into the world of, let us say, fifth century B.C. Greece, or ancient Rome, or the Middle Ages.

Later, in creating a new college for the State University of New York at Old Westbury, some of us had the notion that we would combine a kind of University of Chicago, St. John's, great books, classical, common seminar system with a semester or year in overseas service. We were imagining a combination of service in the Peace Corps and three years of liberal arts education at home base on the campus. That was in the mid-to-late sixties. You may guess that the wave of student interest at that time was no longer the outside world but rather the inner city as the central problem of American life. So the international dimension got knocked out.

Another diversion occurred in 1966: the Smithsonian task force of Lyndon Baines Johnson, for which I was the Peace Corps' representative. I worked night and day for several months to develop a new plan for international education in the United States. The Smithsonian task force entertained some big ideas, one of which was an exchange Peace Corps, with volunteers from abroad coming to America. Now remember, that was the period when there was talk of expanding the Peace Corps—then 15,000 strong and operating in about 90 countries—to 100,000 a year, with strong connections to higher educational institutions. Sargent Schriver was launching the war on poverty. In addition, Robert Kennedy and Sargent Schriver were talking about a volunteer corps of a million people that would apply Peace Corps principles to the United States—what became VISTA, Volunteers in Service to America. We were thinking of inviting large numbers of volunteers from other countries, primarily to teach their languages, cultures, and the history of their countries in U.S. schools. We also envisioned a much larger body of foreign students participating in American education. The aim of the task force was to turn American education into world education, and to do so on a major scale.

You know what happened to both that initiative and the war on poverty. Another war intervened. The war in Vietnam took our attention and resources, and tore our country apart. It's a sad story. And yet in *Paths in Utopia*, the story of the kibbutz, Martin Buber said, "Always remember that really great ideas, good ideas, will be again turned up when again there's a meeting of the creative hour when idea and fate meet once again." I would like to hope that maybe we and the world are on the eve of another creative hour.

Is all this pertinent to our problems today, especially our problems of reaching the hard-core undereducated, unemployed, or potential dropouts in our society? The jobs of the future in Pennsylvania and the nation are going to require a better-educated generation than the world has ever known. Is an international dimension really a necessary part of this education? I would say yes. I think there's an educational clue in all this that is absolutely relevant to our current problems. We can't all have grandmothers able to take us around the world, but somehow our educational system must find an equivalent.

We are working with Tom Gilhool to develop the whole concept of citizen service in Pennsylvania. It is a program very close to the governor's heart. I would suggest that part of that citizen service program should give our state's young people and teachers the opportunity to work overseas, to serve, to study, to teach; and that we find the way to open our doors to an exchange with thousands of people from the rest of the world who could teach in our schools and provide the foreign language training that would transform our young people.

I love Pennsylvania, but there is one little thing I would like to change here. I think it was Henry Adams who said that the Pennsylvania mind is a very good mind. It's a very practical mind if you want to get something done. But it's not very imaginative; it's very parochial and limited to Pennsylvania. I think we would accomplish a great deal toward the state's economic success if we could find a bold and persistent way to expand the vision of the people of Pennsylvania to the world in which they must become citizens. Alexander the Great said, "You should dream and scheme and raise your sights and get your vision at night while drinking, and then decide the practical things in the morning." I think we must do our best in this conference today to raise our sights for the sake of Pennsylvania's economic success and the basic education of the next generation of Pennsylvanians.

George A. Fechter
President, Limbach International Corporation

Statistical analysis is not necessary to demonstrate the correlation between schooling and compensation or, in comparative regional economies, the correlation between expenditure on education and economic development. Applying the principle of specificity, it is only natural that education in international studies will produce increased international economic development. The question addressed here is: What constitutes international education from the perspective of a business practitioner? This may be quite different from the perspective of an educator or a political representative.

Internationalism should evolve like a theology, with shared beliefs, creeds, practices, and conversion rituals. Pennsylvania companies and employees must be converted to this theology because internationalism involves new markets and jobs; if you are not an internationalist, others who are will enter and take your domestic market. The role of education, then, is to propagate the faith, represent a great theology of shared knowledge and beliefs. The formula for success is: solid vocational skills in product or service area plus internationalist knowledge equals success—company profits, economic growth and increased jobs.

What is the internationalist theology? Rather than address the question via macro educational policy, which I am ill equipped to do, I will approach it from the standpoint of how a caring father expects to indoctrinate his son. Models are always useful. I would therefore invite my son to various internationalist events to meet successful international business people. He would find the internationalist to be engaging and intellectually curious, with solid vocational skills. He would find that relatively few are bilingual and that most commerce is transacted in English, the most important language being that of letters of credit, foreign exchange, counter trade, and political risk. Those who are bilingual would have anecdotal success stories, and all would agree that being bilingual is a sign of being well educated; therefore while a second language may not be essential, it is highly desirable. It would be useful for educators to provide guidance on how to learn 200 words in a particular language so travelers can demonstrate interest in the country being visited.

The first lesson in internationalism is to select the right business partner; do's and dont's can easily be taught. The second lesson is to gain some understanding of the culture of a particular country. Like language, no one culture serves all places. But similar to the usefulness of knowing 200 words in a language is the usefulness of being a quick study of any culture, by reading and from experience. Margaret Mead was an outstanding internationalist who, with specific vocational skills such as product knowledge, would have been a commercial success.

When my son inquired about choosing a place for higher education, we would find a school with an international flavor, that is, foreign students and some foreign faculty members. I would suggest that, as part of the course-selection process, he ask prospective instructors what is being done in Japan or Russia in the particular subject area. Internationalism should not be a course or department; it should be part of *most* courses and departments.

Ideas such as Reaganomics, or theologies such as Catholicism, provide a framework for decision-making about a wide variety of behaviors. I am suggesting that internationalism is such an idea or attitude for which the time has come in Pennsylvania. There are thousands of Pennsylvania firms that could be and should be exporting. Higher education in internationalism must therefore inspire as much as teach. Internationalism is alive and thriving in Massachusetts, for example, where technology and international education come together.

There are competing theologies and obstacles to any conversion. The United States is not Japan; the government plays a more limited role in commerce. Our government today is like a cheerleader. It has a small foreign commercial service staff, literature, and all the warm fuzzy support, but it is not on the cutting edge in providing credit and risk assistance—in helping with the sale. In addition to private-sector conversion, we need concurrent public-sector participation. Government clearly needs to be a partner and not a constraint. When government becomes enlightened, when public and private-sector practitioners realize they are in the same boat, the theology will reinforce itself and be more productive.

Another constraint is that the United States abhors centralization and other economies of scale necessary for second-tier companies of the industrial economy to compete overseas. U.S. individualism is a rival theology, a value competing against fundamental rules of internationalism. There is not much room in the international economy for the go-it-alone cowboy.

The theology will in the end force choice between internationalism and protectionism, alternative strategies in dealing with an overwhelming force. The believers will not only endure, but prosper. The protectionist may secure short-term relief, focusing on yesterday but not tomorrow. The educational community must produce smart citizens, smart politicians, and smart practitioners who *know*, *believe*, and *practice* the internationalist faith.

Jay D. Aldridge
President, Penn's Southwest
Member, Governor's Task Force on International Trade

I want to take a few minutes to talk about what is taking place in the international world, from our purview as an economic development organization. To reflect a little on some of the experiences we have had in Pittsburgh, there are 211 foreign-owned firms based here employing upward of 55,000 people in southwestern Pennsylvania. Their impact in our particular corner of the world is important, and they make a strong contribution to our local economy.

As I was listening to these distinguished speakers, a couple of thoughts came to me. One is somewhat negative in view of the plea for peace we have heard. Unfortunately, there are those throughout the world who tend to put their politics and order of priorities above and beyond peace; yet they reflect this whole international syndrome that involves all of us. A few Sundays ago I happened to come across a small article in the *New York Times* that said, "Libya bombs Chad, but Chad shoots down one airplane." We average Americans would just ho-hum that incident. But a careful reading of the article revealed that the Libyan airplane was a Soviet-built TU-22 and that it was shot down by French troops on Chad property with an American rocket.

The other reflection I want to mention is an experience I had two years ago when I lectured at Dalian Institute of Technology in China. The U.S. Department of Commerce had called on some of us to teach something about the capitalistic system to thirty-eight Chinese who had been appointed to establish fourteen enterprise zones throughout China. Some six weeks earlier, we had submitted an idea of what we were proposing to discuss. At the first session I decided I'd better learn something about the crowd gathered in front of me—find some bench mark—so I said, "How many of you have heard of General Motors?" Eight hands went up. Then I said, "How many of you have heard of Volkswagen?" Five hands went up. I thought, boy am I in deep weeds. For the next two hours I winged it until I could get out of the class and rewrite my whole scenario. Right up front was a 51-year-old gentleman who spoke eloquent English, although he never let on until the second class when my interpreter got stuck and this man offered the word in excellent

English pronunciation. When I asked how he had learned English so well, he responded, "Oh yes, I took my MBA at the University of Moscow." I then asked what that had to do with English and he replied, "We used books from Stanford University."

Let me set the stage very briefly. There are three enormous economic powers in the world today: Japan, the European community, which will grow into a market much larger than the United States by 1992, and the United States. There are also three major political forces in the world today: the Soviet Union, the People's Republic of China, which is emerging much more rapidly than we think, and the United States. The only common link economically and politically is the United States. We must thus develop a world mentality. If we look at the situation from the economic viewpoint, using Japan and Germany as a case in point, these countries developed a trader mentality long ago. They are comfortable with the fact of trading in the United States. It is interesting to note that within five years there probably won't be a steel mill left in Japan. And it's probably fairly safe to predict that within ten years there will not be an automobile built in Japan. However, that does not mean for one moment that the automobile factories in this country will not be Japanese managed. What we are saying is that it is imperative to learn about and be a part of the world economy. To do so demands a knowledge of both economic and political impacts.

We now have the opportunity to attack export markets, but to do this will require education; that is the key to success. As educators, your role is paramount. I didn't feel this way when I was in your classroom. I do now. Your ability is the most potent force available today for developing better leadership, and we need it now. Turning our backs on this task would have a negative impact on this country.

Economic development is simply the ability to attract, retain, and develop new knowledge, and combine it with our resources for creating jobs. The state is concerned, and rightfully so, with establishing an environment, a greenhouse if you will, in which economic growth may take place. And I believe they're doing a good job. The seeds that you plant in your students must grow straight and bloom. How well they bloom will, in a large measure, depend on you. You work

with young minds and send them out into the world with a kiss, a prayer, and the hope that they will succeed. You may never see the rewards of your efforts, but they're there.

Briefly, here are a few of the educational requirements of foreign companies that have located in our region:

- They need to know our educational entry levels because ours do not relate to their standards.
- They lack understanding of our laws because we use English law and most offshore countries use Napoleonic law.
- They lack understanding of our accounting procedures.
- Academic and business people must communicate. I realize that in the past they've been like "church and state," but we desperately need each other now.
- It is imperative that we create within our students, our industrialists, and our citizenry in general the desire to understand global events. But you have the difficult job: to motivate your students.

I'm but a small player in this vital, vibrant world we all live in, but it's fun to be here and to be a part of it—in a small way to be part of your team. Let's all work closer together.

Donna Wall
Commissioner for Basic Education
Commonwealth of Pennsylvania

As educators, we have a responsibility to help our students stretch—to see beyond their present environment to the global world we live in. Our complex technological world requires us to access available resources in the preparation of students for future growth. At the same time, our economy needs to move from an order-taker to an exporter-marketer mentality. Indeed, economic development is one of Governor Casey's major initiatives; education is another.

This conference on international education is one of several efforts by the Department of Education to support the Governor's initiatives. We hope it is worthwhile and provides an opportunity for professional growth that will result in broader horizons for your students. In Pennsylvania there are nine collaboratives addressing international education through cooperation between the school systems and institutions of higher education. These can serve as excellent models for future expansion of this type of program.

Where must we look for improvement that will permit our students to stretch and grow? The first place is in the teaching of geography and history. In the four school districts in which I have worked, I have yet to be satisfied with the amount of geography that is taught or the opportunity children have for learning about their world.

Secondly our children need more opportunities for learning foreign languages. Learning another language not only improves our command of our own, but it also opens our world to other experiences. English is taught in many countries throughout the world; how unfortunate that we don't emphasize foreign languages more in our country. This past summer we helped five school districts to offer summer intensive language experiences for non–English-speaking students. In the coming summer, we hope to expand that opportunity so that English-speaking students have an opportunity to learn another language in a similar concentrated effort. As part of this plan, we hope the students can learn from one another. We would like to see such interaction in several of the 70 languages that are spoken in Pennsylvania.

The third area we need to focus on is expanding and understanding our worldwide economy. This is an area in which we can call upon the resources of our partners in business and academia for assistance.

Today, as representatives of education, government, labor, and industry, you have the opportunity to learn and grow together. Tomorrow, educators will have the opportunity to share that growth, expanding the world for each Pennsylvania student.

James R. Lloyd, Jr.
Special Assistant to the Governor
Commissioner, Delaware River Port Authority

As a member of Governor Casey's administration, it is particularly appropriate to be part of a forum that by its structure recognizes the concept of partnership. Governor Casey has stressed this concept, citing the need to bring together the force, creativity, and commitment of government, the private sector, and education, and to focus their efforts in such a way as to achieve economic vibrancy and social progress. He has actualized the concept through the creation of the Economic Development Partnership: a real partnership, helping to create real jobs, so people can constructively participate in the real world. It has long been axiomatic that the best social program is a private–sector job, and a functional partnership can make that happen. In Pennsylvania, it *is* happening.

The elements of economic success are varied. There are, however, some that are imperative but have been previously ignored by the partnership's individual components. For example, government has largely ignored entrepreneurial attitude, which is essential to sustained economic growth. Under the auspices of the Economic Development Partnership (EDP), Governor Casey has shaken loose the bureaucratic cobwebs and replaced them with entrepreneurial energy. Economic opportunities are now grasped by a highly effective, mobile response team within the EDP. The effort to shake the structures of bureaucracy and replace them with clear, logical, aggressive response is a battle that must be waged; in Pennsylvania it is being won. Another key element of success is direct responsibility. In the morass of government, it has generally been more difficult to pinpoint direct responsibility than in the private sector, where the bottom line is operative.

Now as we work together—rather than independently—toward economic and social success, the educational field figuratively asks, "How can we best help?" The answer, in my opinion, is through emphasis on and improvement in communication and mathematical skills. The person who cannot speak clearly has no chance for economic success. This notion is so self-evident that it seems strange to have to state it; but just as entrepreneurial attitude and common

sense are essential institutionally, the ability to communicate clearly is irreplaceable on the individual level.

A very close second, if not equally as important as communication, is fundamental mathematics ability. To send adults or children into the economic/social arena, the real world, without such skills is to condemn them to failure. This problem relates to the concept of direct responsibility, in this instance to schools, and by extension to families. Just as we have begun to shake the notion of bureaucracy and replace it with responsiveness, and have begun to dislodge prevailing attitudes by common sense, we must impose, if necessary, the notion of direct responsibility at the family level. A school can teach, but realistically it cannot replace family. If we are demanding our educational institutions to provide basic skills, then we must ask ourselves as members of families to provide an environment of loving, caring and nurturing for our children, enabling them to learn effectively at school. Hence the family is the baseline of any partnership for progress.

In Pennsylvania, New Jersey, and Delaware, we now find that we can apply these concepts to our ports, which represent an opportunity to increase economic activity regionally, and thus create jobs and other benefits. Success will not occur on its own, however. On the contrary, if the future of the ports is not dealt with thoughtfully and forcefully, the result will be decreased port activity and worse yet, missed opportunity.

In recognition of this, Governor Casey has met with Governor Kean of New Jersey and Governor Castle of Delaware, both of whom share his vision of a regional port that fosters economic activity within a strict framework of environmental propriety. The three governors have agreed to further explore and develop a strategy beneficial to the region and its individual states. Furthermore, Governor Casey has pledged to support a capital funding initiative of $34 million for Pennsylvania's portion. He has also asked Henry Wendt, Chairman of Smithkline Beckman Corporation, to conduct a study under the auspices of the EDP of the Commonwealth's present status on port operations. These actions, when combined with the leadership of St. Joseph University's President Father Nicholas Rashford, who serves as Chairman of the Delaware River Port Authority,

reflect our ability to bring together various elements of the public and private sectors towards the pursuit of a common goal.

In the final analysis, such activity reinforces the notion expressed in the old saying, "To live and let live is fine. To live and help live is better."

Joyce M. Randolph
President, Pennsylvania Council for International Education

Modern communication technology now offers exciting possibilities for broadening the scope of instruction, bringing new perspectives to many subjects, and generally strengthening international education. Almost every week each of us is made aware that the world is indeed shrinking, that instant interactive communication opportunities abound where they did not exist ten to twenty years ago.

This realization was dramatized most recently for me on October 19, 1987, when I was in Lagos, Nigeria. That day, Black Monday, the stock market crashed. Despite the miles isolating me from Wall Street, thanks to satellite communication I was literally able to watch the endowment of the University of Pennsylvania shrink minute by minute. It was a sobering experience. There's a saying that bad news travels fast; nowadays it travels instantaneously.

As an example of the ways in which technology is helping to internationalize education and communication in universities, Tufts University has used satellite technology to link an international relations classroom in Boston with a counterpart at Moscow State University in the Soviet Union. The realization of this "global classroom" concept is still prohibitively expensive for most institutions. But for many, modified interactive communication is already within reach—perhaps one-way video and two-way audio, or the transmission of still images through telephone lines, or foreign language broadcasting and reception with satellites. Such advances offer the prospect of truly internationalizing our students' direct communication with peers and faculty in other countries. It promises to change the way students in the United States look at international relations, the sciences, foreign language acquisition, and other subjects. An intellectual revolution is being created.

A set of challenges faces us. One is the tremendous power accompanying these technological advances. In this often chaotic world, we must act responsibly to harness that power, to use it sensibly, to use it for educational and other positive purposes, for humanizing the world. A related challenge is managing the information explosion. There are now so many possibilities for sharing the ever-increasing mass of knowledge that one has to find a way to

direct it so that we are not overwhelmed, so that we are indeed able to sort through what could be a morass. As we enter the 21st century, we are being challenged to prepare our students for humane and constructive leadership in this global village.

SECTION 2

The Pennsylvania Council for International Education (PaCIE): An Informal History

David M. Gray

Like many other volunteer advocacy organizations, the Pennsylvania Council for International Education (PaCIE) originated from the informal work of a small group of concerned individuals. The initial group consisted of faculty members or international program administrators from four large research universities—Pennsylvania State University, Temple University, the University of Pennsylvania, and the University of Pittsburgh—and a smattering of representatives from other Pennsylvania colleges and universities known to have a commitment to international education.

Of this original group, several of whom subsequently played major roles in the organization's direction and guidance, Dr. Paul Bixby of Pennsylvania State University is usually cited as the architect of PaCIE; he initiated the call for a statewide committee to promote the advancement of international education activities within Pennsylvania higher education. Responding to Dr. Bixby's call, the Committee on Coordination of International Programs in Pennsylvania Colleges and Universities was formed in 1967 and met intermittently throughout 1968 and 1969. This committee focused on the means to develop cooperative programs in international studies, establish communications concerning international activities, and determine how the interests and service needs of Pennsylvania institutions might best be served.

The formation of the original statewide committee obviously did not occur in a vacuum, but was a response to several concurrent national developments. Initially there was the hopeful anticipation of the funding of the International Education Act. This held the promise of a major expansion of international education programs on a wide front, especially for institutions in states that were organized to respond on a broad basis. In fact, the first action of the new Pennsylvania committee was to distribute a survey of the international education activities of Pennsylvania colleges and universities.

The International Education Act was not funded, however; further, the anticipated era of expansion in international education was thwarted by an overall cutback in various existing government and foundation aid programs targeted for international education. Thus while the founding committee had intended to prepare for a bright new future in a favorable national climate, it soon became more concerned with organizing a strong statewide front to advocate the

protection of existing international education programs and to explore situations in which cooperative endeavors might promise a higher probability for success than ventures sponsored by individual institutions.

While the original expectations of the founding committee were somewhat frustrated, the sharing of experience, the evidence of potential for cooperative activities, and the continuing belief that coordinated advocacy would be more effective than individual institutional lobbying led to the conclusion that the informal committee should be replaced by a broader based and formally incorporated statewide organization.

Protecting Pennsylvania's International Education Resources

To this end the committee invited a number of other interested colleagues to join them in planning a new state organization of colleges and universities. This expanded group organized a statewide conference to be held at Pennsylvania State University on October 27–28, 1970, and invited all of Pennsylvania's 146 institutions of higher education to participate. Twenty-three colleges and universities attended the conference, providing support and formal endorsement for the establishment of a new organization to be designated the Pennsylvania Council for International Education.

At the first organizational meeting on February 17, 1971, the temporary chairman, Dr. Paul Watson from the University of Pittsburgh, announced that forty-three colleges and universities had joined PaCIE; twenty-eight were represented at the meeting, during which draft bylaws and the following statement of purpose were adopted:

- to develop and improve the means of communication among the member institutions, their faculties, and students in international activities;
- to foster long-term growth of international education within Pennsylvania through the cooperative strengthening and expansion of the international curricula and activities of member institutions;

- to foster the establishment of joint study, research, training and technical assistance projects abroad among the member institutions;
- and to preclude, where possible, among the membership costly duplication of effort and competitive expenditure of scarce funds for resources in the international field.

The following officers were elected:

Chairman:	Edwin Adkins, Temple University
Secretary:	Robert C. Miller, Bloomsburg State College
Treasurer:	Margaret Corgan, King's College
Executive Director:	Paul E. Watson, University of Pittsburgh
Executive Committee Members-at-Large:	David M. Gray, Beaver College Howard Leavitt, Pennsylvania State University Charles Shreiner, St. Joseph's College
Special Consultant:	Paul Bixby, Pennsylvania State University

The membership of the first Executive Committee is important because it reflects three major underlying elements that have been consistently present throughout PaCIE's history: first, continuity as represented by membership on the Executive Committee of several of the major participants from the original committee—Edwin Adkins, Paul Watson and Paul Bixby; second, the umbrella nature of PaCIE as represented by the deliberate diversity of institutions elected to the Executive Committee; and third, the volunteerism fundamental to the continuing work of PaCIE as represented by the selection of Paul Watson as unpaid Executive Director. In accepting the appointment, Dr. Watson graciously offered the services of his office as a gratis secretariat for the organization, and this consideration has been continued by eleven subsequent Executive Directors.

From its inception, PaCIE was structured to be as inclusive as possible. All institutions of higher education were urged to join,

and dues were kept nominal to encourage membership. A major dependence on the commitment of the representatives was built in, not only through the principle of an unpaid secretariat, but also in the expectation that all officers and members would cover their own expenses for participating in PaCIE-related activities. Thus throughout its history, PaCIE has relied on human and institutional resources that even the largest professional organizations would have difficulty in assembling on a paid basis. This factor, together with the personal commitment of individual members, has provided the major source of PaCIE's strength over the last seventeen years.

In the years immediately following its formal organization, PaCIE became involved in a variety of activities and programs made possible by the sharing of ideas and experience. A pattern emerged from these early efforts that set the course for future developments.

In 1973 a two-year report cited a number of activities and programs that are representative of PaCIE's major continuing thrusts. The first was the effort to enhance the exchange of information among Pennsylvania institutions through the establishment of a newsletter and the sponsorship of an annual statewide conference on international education. Another was the practice of using joint ventures as a vehicle, not only to mount specific projects, but also to utilize the financial and human resources of the members of other similar organizations.

For example, in 1971 twelve Pennsylvania colleges and universities participated in a summer curriculum development project, "Modernization and Education in India"; in 1972 thirteen institutions participated in a similar project on Egypt. These were jointly sponsored by PaCIE and the American Association of Colleges for Teacher Education and were partly funded by the U.S. Office of Education. Other projects included a Workshop on Study Abroad (1972), jointly sponsored by PaCIE and the National Association for Foreign Student Affairs, and a Contemporary China Workshop sponsored by PaCIE at the University of Pittsburgh.

The third main thrust of PaCIE, advocating the internationalization of education to both the Pennsylvania and U.S. Departments of Education, did not evolve into a conscious policy until a later date, although PaCIE had from the beginning made informal efforts to

develop links with the Pennsylvania Department of Education and related public bodies.

After its original burst of organizational activity, PaCIE settled into a routine period, enjoying the fruits of its newsletters, annual conference, and occasional workshops, punctuated by periodic attempts to establish liaison with the state Department of Education. With the passage of time and the continuing erosion of already tight educational budgets, support for PaCIE and for international education began to decline. This was reflected in the theme of the 1975 conference, "International Education Is Not Alive and Well and Living in Pennsylvania." Executive Director Edwin Adkins felt it necessary to give a pep talk, affirming his sense of a real desire on the part of PaCIE members to keep the organization operational and his personal belief that national interest in international studies would increase as far as funding and public interest were concerned. He also informed conference participants that PaCIE was exploring the possibility of combining its meetings with those of another professional group to save travel time and funds for members as well as to provide added visibility for PaCIE.

The years from 1974 to 1977 were a low point in PaCIE's history. Although regularly scheduled activities continued, it proved almost impossible to generate any new programs. Membership declined to nineteen active members, and the Executive Committee's main concern was to keep the organization in place and functional for a brighter day. That brighter day and resulting change in PaCIE's fortunes finally came about as the result of a gradual shift in the public attitude toward international eduction, combined with a major breakthrough in the development of links with the Pennsylvania Department of Education (PDE).

A Brighter Era for International Education

Although through the years PaCIE leaders had on several occasions attempted to establish a constructive relationship with the PDE, all their efforts were eventually thwarted by lack of concern at the upper levels and by a continuing turnover in the politically appointed positions within the department. The breakthrough was triggered by the appointment of Dr. Caryl M. Kline as Pennsylvania's Secre-

tary of Education. In October of 1977, Dr. Kline was the keynote speaker at the annual PaCIE conference. Both in her address and in private conversations, Dr. Kline expressed concern for strengthening international education within the Commonwealth and her willingness to use some departmental resources for that purpose.

Within the next year, the Pennsylvania Department of Education identified international education as one of its priorities; the State Board of Education adopted a policy statement on global education; the Commissioner of Higher Education established a statewide Global Education Advisory Group; and a survey of global/international activity of Pennsylvania colleges and universities was started by the PDE Research Division. PaCIE was involved as an advocate or a participant in all of the activities and used these opportunities to develop its long-sought working links with the PDE.

While this was happening in Pennsylvania, there was also a change in attitude regarding international education at the national level. In 1978 Dr. Anna Blevins, Deputy Commissioner of Higher Eduction, PDE, and Dr. David M. Gray, Executive Director of PaCIE, were appointed to the U.S. Commissioners of Education Task Force on Global Education. Pennsylvania was the only state represented by both its Department of Education and by a statewide organization representing institutions of higher education.

During this period of resurgence, PaCIE also strengthened its informational activities with the introduction of an annual International Education Review and a Directory of International Education Contacts in Pennsylvania Colleges and Universities. The initial phase of the renaissance culminated in 1979-80 when, in response to the 1979 Report of the Presidential Commission on Foreign Languages and International Studies, the PaCIE Executive Committee formulated a Plan of Action for Pennsylvania. The PaCIE review focused on the recommendations that (a) might be implemented on a statewide basis; (b) had some bearing on higher education; and (c) seemed to be within the range of PaCIE's capability. In September 1980 the PaCIE membership adopted the "Plan of Action." While the plan contained a variety of elements, it emphasized cooperation with the Commonwealth on matters relating to international education, foreign language study, and the strengthening of international studies within Pennsylvania's institutions of higher education.

Unfortunately the dramatic surge in commitment to international education within the PDE was eventually subject to the effects of changes in political appointments, staff transfers, and shifting priorities. By late 1979 it had become evident that PaCIE would again have to carry more of the burden in advancing the cause of international education. Major gains had been achieved, however; and although PDE priorities have changed, international education has never been dropped from the list.

For PaCIE, the 1980s have been a period of consolidation and of general strengthening of international education within Pennsylvania, highlighted by the successful development and implementation of several major institutional projects in cooperation with the PDE and member institutions. In the early 1980s, in accordance with its Plan of Action, PaCIE devoted special attention to foreign language instruction and to the internationalization of institutions of higher education. Several statewide workshops on the "Strengthening of Foreign Language Programs" were conducted under PaCIE's auspices. In 1983 funding was obtained from the U.S. Department of Education for the PENN/PaCIE Institute for Institutional Development in International Education. [See description of PENN/PaCIE Institute in section five.] Over the next five years, the Institute assisted forty-seven Pennsylvania colleges and universities in their efforts to internationalize.

PaCIE also devoted attention to strengthening international education at the secondary level, and in 1983, with the encouragement of the Department of Education, PaCIE proposed the establishment of a summer Governor's High School for International Studies [see description in section five]. Subsequently accepted by the PDE, this proposal was funded by the legislature; the fist summer session was conducted at the University of Pittsburgh in 1984 and the second by the University of Pennsylvania in 1985. The responsibility for succeeding sessions was transferred to the University of Pittsburgh. The Governor's School for International Studies represents a watershed for PaCIE's role as activist and advocate vis-à-vis the Pennsylvania Department of Education.

The most recent PDE-PaCIE joint project has been the creation of a group of regional International Education Collaboratives encompassing elementary, secondary, and postsecondary institutions in

Pennsylvania and working together on common programs and the sharing of resources [see section five]. The initiative to establish these collaboratives was funded by the Department of Education, with PaCIE assuming the major responsibility for long-term coordination of their activities.

Thus from its origin as an informal committee of highly committed international educators, PaCIE has survived various droughts in national and state concerns for international education, slowly gathered strength of its own, built momentum through building programs, and carried out a major role as an advocate for the development of international education throughout the public and private educational structure in the Commonwealth of Pennsylvania.

SECTION 3

Education for International Competence: The Dimensions of the Task

Burkart Holzner
and
Andrew Dinniman

The Challenge to American Institutions: Structural Change in the World

Changes of enormous scope and significance are occurring in the world today, altering the relationships between economies and states, and indeed the structure of societies. The most visible aspect of this global structural change manifests itself in the internationalization of domestic economies and the interpenetration of markets.

Early in the industrial era, the supremacy of England was soon challenged by the then newly industrializing countries of the European continent; today this occurs on a truly global scale. Brazil, Taiwan and Korea are just a few examples of powerful expansion in today's newly industrializing countries. Technological innovation has created global competition in financial markets, in which today transactions can occur around the clock. Similarly, markets for technology span the globe. Most painful, however, is the globalization of labor markets, which has led to serious dislocations and pressures in regions of the United States.

The process of global structural change is driven by the increasing rate of scientific and technological progress. The role of science continues to become more central in today's economies, in the forming of policies by governments, and, of course, in military affairs. The emergence of a form of society and economy driven by scientific and technological advances has fundamentally altered (and not always for the better) the nature of work, of public issues, and of the terms of participation in economic and public life. While past societies have had to deal with transformation, no society has ever experienced the rapidity of change that we are confronting today.

The impact of these changes means, among other things, evolution from a society in which a young person can expect to learn at an early age the skills that he or she will practice for a lifetime, to a society in which continuous learning and adaptation are inescapable. This in itself is an important challenge for the restructuring of educational institutions.

The shape of the international political system that is now emerging is complex and multicentric. The tension between the two superpowers and the fear of nuclear war resulting from their confrontation

has not disappeared. Crucial though it is, however, the East-West conflict has overshadowed in the consciousness of many the emergence of new centers in the great non-Western civilizations. This evolving reality of a pluralistic and complex global political system challenges our analytical ability and understanding.

A period of such profound structural change is always one of danger and instability, as well as challenge and opportunity. Traditional cultural identities and many beliefs are inexorably threatened by the progress of scientific knowledge and by international comparisons. Cultural confusion and anguished movements to preserve fundamental beliefs have much to do with the rise of terrorism and with internal or international war. Inequalities and the tensions they produce have not diminished; in some places they have become worse.

The United States faces these new realities with many assets. Ours is an open society, basically committed to innovation and to science and technology as accepted forces. It is a society built on powerful ideals of democracy and human rights. There are, however, grave causes for concern. In the not-so-distant past, America's predominance in the world could be taken for granted. This, of course, is no longer so. The country has to deal with the challenge of a growing underclass and an increasing rate of functional illiteracy. The response to date has not been sufficient.

The Imperative of International Competence

Much of the national debate about the new economic challenges to the United States has been carried on under the theme of America's international competitiveness, and much of that debate has focused on improving the purely technological performance of American business. The response, however, must be much more comprehensive. Competent performance in the international arena requires more than technological prowess. The matter has been well stated by C. Jackson Grayson, Jr. and Carla S. O'Dell in their article, "America's Third Deficit: Education," in which they point out the close link between education, the ability to perform competently, and effective participation in competitive situations. They say:

> Education is directly linked to competitiveness. No society can have high-quality outputs without having high-quality inputs. Education provides human capital to combine with physical capital for increased productivity and quality.
>
> This has always been true. But it is even more true in a global, technological economy. A competitive nation needs people who have:
>
> — a high degree of average functional literacy
> — some basic competency in mathematics, statistics, and the scientific method
> — the ability to observe policies and to analyze, interpret, and take action
> — a knowledge of the world
> — the ability to work together in teams
> — the ability to accept responsibility
> — the ability to learn continuously and adjust to change.
>
> Note that this list does not just include "math, science, and engineering," which is the current national push in education. It also includes basic literacy (reading, writing, communication), interpersonal and attitudinal skills, and a knowledge of the world, geography, history, economics, language. In most of these areas, the United States is coming up short. (C. Jackson Grayson, Jr. and Carla S. O'Dell. "America's Third Deficit: Education." In *American Business: The Two-Minute Warning*. New York: Free Press, 1988).

International competence, thus, is a multidimensional challenge. It requires the widest possible, indeed universal, literacy. Beyond that, widespread understanding of the underpinnings of scientific and technological civilization, knowledge of science and mathematics and statistics, a certain degree of computer literacy, and a well-structured knowledge of the world are basic requirements today. Grayson and O'Dell are correct in pointing to the importance of interpersonal skills, the ability to work in organizations, the need for realism in appraising situations. Finally, an understanding of the nature of effective and high-quality work and the capacity to accept responsibility, as well as the ability to accept change, are among the dimensions of international competence.

As we pointed out in the introduction to this book, American education is inescapably competing with the educational systems of other countries in three ways. First is the ability to do research and to develop innovations based on the results. Second is the ability to teach basic skills to all citizens. Third is the subject we are dealing with here: awareness of the world and an understanding of the internationalization of societies and economies; this requires knowledge of languages, cultures, and other societies.

The Tasks of International Education

International education has the responsibility to provide our people with an adequate knowledge of the world and with skills to move effectively within it. Certain underlying frameworks of factual knowledge and abilities must be major elements of basic education for all youngsters; others are the domain of specialized professionals and experts. A prominent Pennsylvanian, Richard D. Lambert, until recently of the University of Pennsylvania, has provided an important analysis of the U.S. system of international education in his book, *Points of Leverage: An Agenda for a National Foundation for International Studies* (New York: Social Science Research Council, 1986). He views the national system of international education as a whole and examines those "points of leverage" where a relatively small effort can effect major improvements.

Lambert addresses, of course, the responsibilities of the federal government for national leadership; however, education is the constitutional responsibility of the states, and much needs to be done at that level as well. What we are now discussing is the responsibilities for international education in the Commonwealth of Pennsylvania. Our concerns have to be discussed under two headings: (1) the goal of international competence for the next generation—rethinking universal expectations for basic education; and (2) specialized domains for international expertise—higher education.

The Goal of International Competence for the Next Generation: Expectations for Basic Education

It is impossible to understand contemporary events without some knowledge of world and United States history and geography. This

means that at all levels of education, both basic and higher, it will be necessary to establish specific pedagogical goals and to define an acceptable framework for what constitutes minimally adequate knowledge of U.S. and world history and geography.

Facts, of course, do not speak for themselves. All of our students need to have some appreciation of the array of competing frameworks for interpreting facts; they must be aware of the intellectual, political and, indeed, strategic importance of thinking about the international and global system.

When we say that the states, economies, and societies of the world are in the process of structural change, we necessarily imply that our sense of identity is being rethought. At all levels of the curriculum, we must make reasonably sure that our students have at least an opportunity to appreciate the way in which Americans have defined the ideas on which its nationhood is based and what these ideas now mean in a changing America and world. Building on basic studies of geography and history, international politics and economics are important topics for middle and high school curricula. Realistic understanding of these topics is essential for competent policy-making and performance. Different curricular levels require different degrees of complexity of such understanding.

All of our youngsters should at least be offered the opportunity to study a foreign language as a tool for understanding the structure of cultures. Pennsylvania has a rich ethnic heritage of great diversity and vitality that can be used to show our youngsters the state's manifold relations with the world. These cultural resources can enhance language study. In America, language study is too often thought of only in practical, instrumental terms: "When do I need it to communicate with someone who doesn't speak English?" But language study has much broader, reflective purposes as well and should be embedded in the understanding of cultures. The difficulties for curriculum designers and for the language-teaching professions should not be underestimated. Facing a scarcity of well-prepared language teachers and a paucity of research on effective instructional methods, we must organize ourselves for a major effort to improve the situation.

In geography, history, international politics and economics, and foreign language and culture studies, the standards set by the Commonwealth need to be reexamined, and when necessary resources garnered to achieve standards of excellence.

Higher Education

The Undergraduate Curriculum

Our executives, administrators, and professionals must be internationally competent. This need forces us to think about the sequence of educational experiences and opportunities, and choices young people make as they move through our educational system into the world of work. Obviously it will be necessary to assure ourselves that students learn early about the educational expectations, standards, and resources for the study of world areas, international affairs, foreign languages, and the opportunities available in a number of specialized skill areas of international relevance.

Efforts to internationalize the undergraduate curriculum are currently underway in many colleges and universities throughout Pennsylvania. The term "internationalizing" does not mean the same everywhere; one of the strengths of our system is its diversity and pluralism. Much work and public debate will be necessary to assess the merits of different curricular goals, content, and means of instruction. What is needed is a rigorous course of study that does not compromise with the quality standards established by academic disciplines in the humanities, in anthropology, geography, history, sociology, economics and political science, and in the specialized areas of inquiry we discuss below.

Specialized Domains of International Expertise

Language

We have talked briefly about language learning as part of the general curriculum. However, the preparation of language teachers, the study of language pedagogy, and the study of language in its cultural context are matters of disciplinary expertise that require specialized attention by linguists, by our schools of education, educational researchers and the relevant professions.

International Science and Technology

Science and technology have always appeared as transnational forces. They are, however, for all practical purposes, highly bureaucratically organized and embedded within the various nation states and their economic establishments. The study of the social basis and social consequences of science and technology has become a specialized and complex field of expertise. While international information flows in science and technology have become enormous, their management, too, requires special skills and technical preparation.

Our college curricula probably should include opportunities to study the history and contemporary roles of science and technology on a comparative basis. In order to do this, the Commonwealth needs to preserve and strengthen its capacity for preparing specialists and for research, so that experts will be available to provide such instruction.

The Interdisciplinary Study of World Areas

The Commonwealth of Pennsylvania is fortunate in having in its major research universities area studies programs of world distinction. These programs, several of which are designated as National Resource Centers by the U.S. Department of Education, have strong scholarly faculties. They are capable of providing interdisciplinary mosaics that enable scholars, students, and practitioners to achieve understanding of specific world areas that is rugged enough to withstand validation in practice. These programs are the primary specialized resources for improving the international education system as a whole and at all levels.

Comparative, International, and Global Studies

Attention to intercultural comparisons should be fostered at all curriculum levels. On the basis of recent advances in comparative scholarship, especially in the study of civilizations, it is better not to dwell exclusively on comparisons as such, but rather to emphasize the encounters and interactions between different cultures and

civilizations, their interrelations, and the profound influence they have had on each other.

In the narrower sense of the term, international studies deal with the web of relations among nation states. Such studies include concern with international economics, the analysis of international organizations and regimes, technology and information flows, as well as migrations of people across national boundaries.

Global studies, by contrast, deal with the planet earth as a whole, as in the study of global ecological change, resource constraints, and other issues dealing with the relationship of mankind to its habitat on this planet. This field requires an integration of planetary and space sciences with other physical, biological and social sciences, as well as humanities. In the era of space exploration (and the economic utilization of space) as well as heightened awareness of the fragility of our natural environment, global studies need to be more actively cultivated.

The Professions

Virtually all professions are actively seeking to enhance the international competence of their current and future practitioners. Pennsylvania's schools of business, law, engineering, public health, social work, and all the other professions are taking note of the international dimension. In each of the professions, specialized forms of expertise are needed, not just international linkages or exchanges. This is a formidable task facing the Commonwealth's colleges, universities, and professional schools. For a professor of law, for example, to acquire specialized expertise in the commercial law of the European Economic Community is a matter of several years' sustained effort. In many cases, the structure of the institutions and the burden of ongoing responsibilities actually inhibit such an understanding. Much attention, therefore, must be given to professional faculty development.

The fact is that Pennsylvania's major research universities are among the most advanced institutions in various aspects of international studies. The state universities and colleges, and the large num-

ber of high-quality private institutions, including advanced technological universities, provide extensive and highly varied resources.

Study Abroad and Exchange Programs

The experience of studying abroad may be the most important opportunity for our students to achieve international competence. Study abroad programs should be carefully related to substantive international education programs, especially in comparative and area studies. Under these circumstances, the experience of life in another culture and the opportunity to perfect language mastery are of immense educational value. Also of great value is the opportunity to form friendships and social interconnections through exchange programs. A special role can be played by community partnerships such as sister–city programs and by organizations such as Councils for International Visitors. While many study abroad programs are available and are functioning well, access to them is still limited by cost factors; further, not all programs link the study abroad experience as effectively as they might with other aspects of substantive international education.

Conclusions

The task of improving the general education of Pennsylvania's youngsters in geography, history, international politics and economics, as well as in foreign languages, is vast. It will take much effort to arrive at specific, stated objectives and curricula. Simultaneously, the professions—ranging from business and engineering to law and social work—need to define and attain the specific international competencies they demand.

Such efforts require a strong foundation in research and scholarship—the centerpiece of which exists in the Commonwealth's established National Resource Centers for Foreign Area and Language Studies. We will sketch the strategies Pennsylvania might follow to attain these objectives in the last section of this book.

SECTION 4

Building the Pennsylvania Partnership for International Competence

INTRODUCTION

In preparing for this chapter, the editors asked one leader each from government, business, labor, higher education, and basic education to think about what is needed for an internationally competent Pennsylvania and to reflect what their own institutions might bring to the task and what they might expect of other institutions. Raymond Christman, Pennsylvania's Secretary of Commerce; C. Frederick Fetterolf, President, Aluminum Company of America (ALCOA); Julius Uehlein, President, Pennsylvania AFL-CIO; Wesley W. Posvar, President, University of Pittsburgh; and Vera A. Bej, Teacher, Cumberland Valley School District and Pennsylvania Teacher of the Year, 1987-88, accepted our invitation.

We are very grateful for these contributions. It is striking that in the five statements there is a strong consensus on the nature and severity of the international challenge facing Pennsylvania. There is also complete agreement that government, industry, labor, institutions of higher education, and schools must cooperate in a major effort to attain internationally competent levels of performance.

The idea of partnerships has clearly emerged as one of the strategic approaches for bringing about needed improvements in international education, with resulting higher levels of international competence. Partnerships are essential not only because they bring otherwise disparate resources to bear on a shared task, but also because they form contexts for more adequate definitions of the policy and performance problems we all face. In our highly specialized and even segmented society, very different perspectives are likely to emerge in the worlds of politics, business, labor, academe, and the schools. The partnership approach requires that people from various institutional frameworks compare their perspectives and arrive at cooperative plans. This consensus across five of the major sectors of society will need to be translated into an agenda for action, a topic addressed in the concluding section of this book.

GOVERNMENT PERSPECTIVE

Raymond R. Christman
Secretary of Commerce, Commonwealth of Pennsylvania

Over the past decade, the economics of the United States and of other nations across the world have become increasingly intertwined. This has manifested itself in a number of ways: increased levels of international trade, a loss of jobs in certain traditional industries, and increased foreign investment. It also has lead to development of what has become known as the "global marketplace."

Pennsylvania, more than most states, has been affected by this set of changing circumstances. On the one hand, unemployment rates in the Commonwealth have been higher than average, particularly in those areas that were dependent on steel and other traditional industries now overtaken by foreign competition. On the other hand, new opportunities also have been created. Over 600 foreign-owned firms now have operations in the Commonwealth, while Pennsylvania companies are exporting at record levels.

Governor Robert P. Casey has established the Economic Development Partnership (EDP) to help meet this challenge. Recognizing that the Commonwealth must compete successfully in a global marketplace, he called upon leaders from Pennsylvania's business, labor, and academic communities to help develop economic policy and chart economic directions for the state. As a first task, the EDP developed a state economic strategy to focus public and private resources on the state's most pressing economic priorities.

The strategic vision of the EDP encompasses three goals:

1. To improve the competitive position and comparative advantages of Pennsylvania companies in the national and international markets.

2. To realize the full potential of Pennsylvania's work force and assist worker and community adjustment to industrial change.

3. To improve the economic infrastructure necessary to support long-term economic growth.

These strategic goals form the foundation for competing in tomorrow's global marketplace. They also provide a basis for determining what international competence needs are most important for Pennsylvania.

Government's Role in Meeting International Competence Needs

The ability to compete and successfully participate in an increasingly international environment depends on many factors that touch upon the involvement of all sectors. There are three, however, that warrant the special of attention of government.

1. Improving Industry's Ability to Compete Internationally

By now it is old news that many American companies were unable to keep pace with foreign competitors over the past 25 years. This resulted from a variety of factors, many of which have been or are being addressed.

The heart of the issue, though, is with finding ways to improve the productivity and efficiency of industry. Much of this responsibility lies with the private sector—companies themselves taking necessary steps to be more competitive. But government can also play a role in facilitating and assisting this process. Pennsylvania has developed several approaches.

The newly established Industrial Resource Centers program (IRC), for example, will create a network of new independent operations across the Commonwealth, sponsored by private-sector and university interests, to work with manufacturing companies in identifying ways to make them more competitive. The IRC's staff, composed of individuals with manufacturing backgrounds, will work with companies on such matters as introducing new equipment into the manufacturing workplace, assisting in the development of new products, facilitating the transfer of technology to the manufacturing environment, and troubleshooting labor-management questions.

The hope is that through these direct, one-on-one relationships with companies, Pennsylvania's manufacturing industry will become more competitive. Given the role manufacturing plays as the

foundation of the state's economy, this can be enormously important to Pennsylvania's future.

2. *Relating the State's Job Training and Educational Efforts to International Needs and Realities*

Pennsylvania annually spends about $800 billion on job training programs of one kind or another. Recently, state government has given new attention to developing a unified sense of direction for how these programs are carried out, so that better coordination is achieved and people are trained and educated for jobs that actually exist in our changing economy.

Certainly part of this effort involves making certain that training and education are provided in an appropriate international context. Basic education, higher education, and vocational education (community colleges, vocational-educational schools, etc.) all should have a mechanism for dealing directly with government and business to determine how training programs, curricula, and counseling services can be adapted or modified to target students' needs.

State government, as the provider of much of the funding for these purposes, must recognize its responsibility to insure accountability and performance in the system, so that there is confidence that this enormous annual public investment is being used effectively and beneficially.

3. *Making International Trade a Central Element of State Economic Development Activities*

A partnership for international competence requires our citizens to become more familiar and more involved with other nations. One direct way of encouraging this is through expanded exporting activities by Pennsylvania companies. As businesses become engaged in exporting, they and their employees are directly connected with other countries in ways that create mutual dependencies and interests.

One of the encouraging trends of recent months has been the surge in U.S. exports, fueled by the declining dollar. The Commonwealth has attempted to capitalize on this opportunity by finding ways to assist and encourage Pennsylvania companies, particularly

small and medium-sized ones, to export. There are many things that government can do in this regard, such as information sharing and technical assistance. Perhaps most important, though, is the need for specific financing programs, whereby the public sector can complement the financing available privately and further encourage the entry of new firms into the foreign marketplace.

While political rhetoric sometimes suggests otherwise, the world has been drawn closer together over the past several decades as a result of foreign policy initiatives, advances in telecommunications, and especially, growing economic interdependency. Improved international education and sensitivity to the international community has become essential to nurture these new relationships and to allow them to grow and flourish.

Government can make a particular contribution to this area by helping our companies compete, by more effectively focusing job training expenditures, and by encouraging firms to engage in international trade. Together with the related efforts of the labor, business and educational sectors, these initiatives can significantly improve the preparation of Pennsylvanians for the international community in which they will live and work in the generations ahead.

BUSINESS PERSPECTIVE

C. Frederick Fetterolf
President, ALCOA

If there is one constant in the continuing cooperation between academe and business, that constant is change. For Pennsylvania, change has been both rapid and complex in recent years. One facet of that change is the need to internationalize—a need felt more strongly by industry and commerce in Pittsburgh, perhaps, than elsewhere in the state.

Globalization has occurred on two fronts, virtually simultaneously. No longer able to satisfy consumers' needs for high quality and low-cost goods and services, this country's industry was forced by competition from abroad to restructure and revitalize itself. In that process, still ongoing, Pittsburgh has learned once again to look beyond America's borders. Many local companies are therefore becoming true multinationals—if they were not already—adapting their specifications to those required offshore and beefing up their international marketing staffs.

After conquering the almost terminal illness of high-cost production, low-quality goods and services, and underdeveloped innovation, the need for survival and the lower dollar are now helping Pittsburgh manufacturers, as they are others in the United States, to successfully market products and services abroad. The quest for quality is being revitalized, and creativity is stirring again. Exports are on the rise after many years of decline and stagnation. Further, many of the investments made abroad by Pittsburgh companies are contributing to bottom lines as incoming dividends are worth more.

The other side of the coin is equally interesting. Pittsburgh is becoming home base to more and more companies from abroad. In the metals business (a segment that I know fairly well), we recently witnessed the start-up of offices here by companies from Norway, Australia, and Brazil. Penn's Southwest Association reports that the Pittsburgh area is now home to 211 companies from abroad. Approximately half of those have their U.S. headquarters here. In total, these foreign-based companies provide more than 55,000 jobs in the Pittsburgh area.

Among the reasons these companies choose Pittsburgh is, of course, geographical location: Western Pennsylvania is close to the industrialized east coast and Canada, yet only a short distance from the south and the midwest. Other investors cite the good infrastructure, the sound work ethic, and the ease with which Pittsburghers adapt to the influx from abroad—even while changing from a manufacturing to a services industry base. Yet another reason lies in the existence of good educational facilities and highly developed medical expertise.

It is obvious to me that academe is playing an important role in this process of globalization. Attracting more students and faculty from abroad, the University of Pittsburgh, Carnegie Mellon University, and the other institutions of higher learning are themselves internationalizing. They are becoming better and more effective transmitters of knowledge, insight, and culture—graduating people who are ready to accept jobs that require an outlook beyond Pennsylvania and the USA.

I trust this change toward internationalization will be a change for the better for business and the educational system. I, for one, would like American-based industry and commerce to attain global prominance once again—through hard work and smart work. We should strive to be the best providers of goods and services, not only in our own state or country, but on a global scale of comparison. We can achieve that goal only with everyone's cooperation. We all have a lot at stake!

LABOR PERSPECTIVE
Julius Uehlein
President, Pennsylvania AFL-CIO

It must be stated at the outset that many of the factors affecting Pennsylvania's ability to seek and keep a share of trade in the international market are outside the control of the state's leadership. They rest in the hands of our national leaders. First, then, on the list of needs that must be filled for Pennsylvania to compete in the international marketplace is a federal government policy favorable to, or at least equitable for, American business and industry.

Work Force

Pennsylvania is blessed with people who are hardworking, family–oriented, and desirous of a stable environment. This asset fills one of the primary needs of industries and businesses seeking locations. But Pennsylvania's work force has been traumatized by the disappearance of much of its historic industrial base during the past decade. Even earlier, Philadelphia and the eastern half of the Commonwealth suffered a recession as basic industry fled from the region. The latter area has begun the return to full employment, although depressed pockets remain. But Western Pennsylvania is the area whose people are suffering now, and whose young people have taken flight in search of the stability that had existed in their home towns through generations but that has now disappeared.

The experience of the last decade proves that one of Pennsylvania's greatest needs in positioning itself to compete internationally is the return to a stable job market and thus a restored belief by its citizens that they can provide for their children a higher quality of life. This is the driving force behind dedicated and capable workers, essential to competitiveness.

Stability of the work force also rests on labor-management cooperation. In Pennsylvania, with its large percentage of workers within the ranks of organized labor, this requires that both unions and management leaders develop respect for each other, and that state government play a role in formalizing a new spirit of cooperation without sacrificing the prerogatives of either side. Steps along

these lines are being taken through the Economic Development Partnership, which has studied this area at length under the leadership of Governor Casey.

Natural Resources

Some benefits that Pennsylvania-based industries can offer may be taken for granted. The state's natural resources, its system of roads, its numerous cities of various sizes with educational and cultural institutions, all make the Commonwealth appealing to business. The water resources alone give it an advantage over many locations in the nation and the world. A joint effort to maximize such advantages is needed. These resources require our constant attention both to maintain them and to use them to greatest benefit. The conservation of precious natural resources, the maintenance of our system of highways and improvement in other modes of transportation, and support for Pennsylvania's excellent cities and towns is the responsibility of state government. Both labor and industry should support these activities, however, because they are necessary if Pennsylvania is to compete globally.

Education

The role of education in enabling Pennsylvania to compete in the world is multidimensional. Education overcomes poverty and energizes people to perform to the best of their abilities. A good system of education assists workers to provide for their families, to help their children have a better life. Institutions of higher education are research and applied problem–solving enclaves whose resources should be put to work in solving the problems of our economy.

The history of education in Pennsylvania is a matter of great pride. Both public elementary education and institutions of higher learning were here first among the states. Now we have the task of lifting education in the Commonwealth out of the mediocrity into which our inattention has allowed it to fall and reinstating it to its premier position—first among the states. That is essential if the Commonwealth is to compete in the world.

Leaders in business, labor, government, and basic and higher education all should involve themselves in the quest for educational excellence, keeping in mind that public education must be of the highest quality at all levels; a two-tier educational system, public vs. private, is unacceptable. At the same time illiteracy must be attacked vigorously. The Casey administration is to be congratulated for putting this problem into focus and making its solution a priority. Again business and labor must join educational leaders and government in identifying and meeting needs.

Leadership

Leadership is an overriding requisite for forging partnerships to develop strategies for coping with today's global economy. Leaders of business, labor, education, and government must share a dream and a hope for a better tomorrow, giving up the natural inclination to maintain the status quo or to return to a yesterday that is gone forever. This kind of leadership requires sacrificing special interests for the common good and mobilizing others in each peer group to do likewise. The goal is a Pennsylvania that is more productive and more competitive worldwide, so that the guarantee of a decent job for every citizen is a reality.

It should follow that increased profits would result from greater productivity and that a broader tax base would provide for government the means to meet human needs, rebuild and improve the infrastructure, protect the environment, and provide the educational and cultural advantages its citizens seek for their children.

The final chapter in *Economic Justice for All*, the pastoral letter on the U.S. economy of the National Conference of Catholic Bishops, calls for a new American experiment, a partnership for the public good, forged from a competitive sense of initiative and a spirit of teamwork, but going beyond these to a renewed commitment to economic justice for all. The leadership called for in the pastoral letter represents each group but sublimates narrow interests for the greater good. For example, union leadership must not merely defend the existing wages and rights of its members, but must empower those workers to make positive contributions to their employer, the community, and the larger society in an organized and cooperative

way. This presents a challenge to the leaders of organized labor, but no greater than the challenges laid down for leaders of business, government, and educational institutions.

Pennsylvania can set an example for the nation in meeting the economic needs of a new century, building on its natural resources, historic structures, and committed citizens, and forging a problem-solving partnership with leadership from a broad spectrum of interests, melding toward a common goal for the common good.

HIGHER EDUCATION PERSPECTIVE

Wesley W. Posvar
President, University of Pittsburgh

Much of the United States is being transformed by the forces of scientific and technological change combined with global economic interdependence. Regions that do not take vigorous steps to adapt to change, indeed to lead and channel that change, will inevitably stagnate and decline. In the Commonwealth of Pennsylvania, the economic realities are changing dramatically as the industrial age dominated by iron and steel yields to a science-intensive and internationalized economy.

Pennsylvania has the elements to create an effective partnership among business, labor, the institutions of higher learning, schools, state, and local governments for achieving successful international cooperation and competition. The state is the home of some of the largest and most vigorous international business corporations. It has a sound system of colleges and strong research universities. The workers of Pennsylvania comprise a skilled, conscientious labor force. In addition, the state has a stunning natural beauty.

But one must not underestimate the severity of the challenge and the difficulty of the task. For many decades, industries felt secure in producing for an essentially domestic market—selling abroad with ease whatever they produced in excess of domestic demand. Production patterns were essentially static, and innovation became difficult. Attitudes carried over from the postwar era are not suited to the stark new reality of international markets. There has been a period of rapid decline in the steel and heavy manufacturing industries. Many workers have lost their jobs, and new jobs created by the economy often pay lower wages than the former ones. Some Pennsylvania mill towns have been hit so hard by economic disaster that their very existence as communities is in jeopardy. The economic, psychic, and social stress of unemployment and dislocation has been severe for many of our people. At the same time, the quality of life has improved in other parts of the state. This disparity between economic prosperity in some areas and economic hardship in others is painful.

Education is more important than ever in this era of economic restructuring. The labor force and entrepreneurs of the future are in our schools and colleges today. Unfortunately, not all is well in the educational system. Far too many American youngsters do not benefit from their schooling and drop out as illiterates, or in extreme cases, even graduate as illiterates. Far too many of our young people join the swelling ranks of an undereducated, disadvantaged underclass. Far too few American students master mathematics and science, foreign languages, world geography and history at an acceptable level. On the other hand, leading research universities stand in dramatic contrast to this indictment, and those in Pennsylvania are already moving forces in our state's efforts to improve its economy. It is indeed a paradox that we have allowed educational standards to decline even though we possess the most accomplished system of universities in the world.

Fortunately, there are exciting new educational initiatives in Pennsylvania. In the Pittsburgh Public Schools, for example, great progress has been made both in science and mathematics education and in international education. Reading and subject area attainment levels have risen in recent years. Yet much more needs to be done. There is a shortage of mathematics, science, and foreign language teachers in middle and high schools. Greater integration of curriculum, stronger discipline, and a spirit of the importance of academic work are essential. At the other end of the spectrum, we must change the way we educate future professional and graduate students. Schools of business, law, engineering, and public administration all face the challenge of more effectively preparing students for the internationally interdependent work world they will face.

Given the shortcomings in the educational system, it is not surprising that some political debates are ill-informed and irrelevant. The discussion of "economic competitiveness," for example, has at times taken a combative "we against the world" tone. Yes, we do have a problem with competitiveness in comparison to others, and we will solve it in the right way only if we understand that the international market is not a zero sum game. It offers rich rewards of increased opportunity, especially to those who understand the economic potential of international cooperation, open markets, and the free flow of goods and ideas. Closing our borders, protecting our

inefficiencies, and withdrawing from world forums are not solutions. Such action is a prescription for disaster.

Local governments, labor and business leadership, schools, and all the other institutions in Pennsylvania that must cooperate if the future is to be prosperous, have a long way to go. However, the potential for success exists, and good beginnings are appearing in many places. The current initiative of the state government to set new directions for international education in the Commonwealth has uncovered a number of innovative programs and promising points of departure.

I have worked for a long time with the Business-Higher Education Forum, a national partnership between leaders of business and academe in the United States. We early recognized the importance of the international economic challenge to American industries. The forum commissioned studies and conferences and helped define the national policy issue. Its initial impetus is now being carried forward by the Congressional Competitiveness Caucus, the Council on Competitiveness, and other organizations.

In Pennsylvania we have the opportunity to build on already established traditions of cooperation, and I warmly welcome Governor Casey's call for mobilization of all Pennsylvania's resources and for a partnership among business, labor, the schools, higher education, and state government. Pennsylvania has a record of positive experiences with the Ben Franklin Partnership, through which the University of Pittsburgh pursues a variety of important ventures in close cooperation with its sister institution, Carnegie Mellon University. Perhaps most spectacular is the supercomputing center of the University of Pittsburgh, Carnegie Mellon University and Westinghouse: one of the country's preeminent technological facilities. The Partnership needs to be expanded to include the furthering of international commerce. It should be linked to a deliberate effort to strengthen and improve the quality of international education at all levels.

The University of Pittsburgh can confidently pledge its active support in such an endeavor. In fact, the University is already a major actor in fostering economic restructuring in Western Pennsylvania and, indeed, the nation. The University of Pittsburgh Applied

Research Center (UPARC), established with one of the largest corporate gifts in the history of higher education, is a good example of a university's role in linking the intellectual resources of its faculty to the practical tasks of the economy.

All such innovations must be viewed in two important contexts: the local community of which we are a part and the international system of communication and commerce. The local community has actively participated in planning the University of Pittsburgh's future through, for example, the Advisory Council on Regional Development (ACORD), which last year brought to the University the counsel of the region's leaders about strategies for more effective academic public service.

The University of Pittsburgh does indeed provide the community with a large array of public services. One illustration is the work of the University Center for Social and Urban Research (UCSUR) in its continuous study of the Pittsburgh region. The center publishes the *State of the Region Report* and produces a wealth of reliable information about the economy and society of our region, providing policymakers with the data they need. Further, UCSUR has the facilities to elucidate with detailed statistics and analyses other industrial regions in the country and in the world.

The international competence in the University Center for International Studies (UCIS) generates exciting new prospects for collaboration. The program on Regional Structural Change in International Perspective is a comprehensive effort to compare the structural changes occurring in Western Pennsylvania, studied by UCSUR, with the transformations going on in the industrial regions of five countries in Western Europe, in Japan, China and, likely in the future, in the Soviet Union. UCIS is a strong partner of UCSUR in the Regional Structural Change project and offers the expertise of its area studies programs as an important resource for the business community. UCIS also works actively with the Western Pennsylvania District Export Council and with agencies of the state government.

The University of Pittsburgh enjoys an active and successful partnership with the Pittsburgh Public Schools, whose superintendent, Dr. Richard Wallace, has instituted one of the country's most effective programs of school improvement. The University is assisting

efforts in mathematics and science instruction and in the study of foreign languages and world areas.

The modern research university is above all an institution for the creation of knowledge and its transmission to new generations of students. But it should also be an economic and cultural actor both in its own region and internationally. As I am writing this, I am traveling to Taiwan, Hong Kong, and Japan to strengthen the partnerships between the University of Pittsburgh and institutions of higher learning, as well as business corporations, in those countries. Such partnerships invigorate the intellectual productivity of University faculty and, in turn, the teaching of our students.

Universities need support to reach their fullest potential. As they work to improve the international capability of business and law schools, and to train highly qualified language and science teachers, they depend upon a public understanding that the centers of intellectual excellence in this Commonwealth must be generously supported. Pennsylvania should establish a program of Commonwealth resource centers in international studies to strengthen the capabilities of research universities and make them available to the public, to the schools, and to the labor and business communities.

Most important of all will be the clear, steadfast, and expanding commitment of Pennsylvania's people and their government to fund university programs. The universities, in turn, will increase the wealth of all Pennsylvanians.

BASIC EDUCATION PERSPECTIVE

Vera A Bej
1987-88 Pennsylvania Teacher of the Year

It has been recognized for some time that the United States is becoming increasingly involved in world affairs, not only politically but also socially and economically. No longer is our position of dominance a given; more and more we find ourselves dealing with other nations as equals. This necessarily implies that Americans must come to know other cultures and languages—not just expect others to know ours. Obviously the educational system must restructure itself to provide this knowledge. It is the only way we can hope to maintain a progressive and competitive economy, along with a socially and politically stable country.

The virtual incompetence of our students in domestic, let alone global, affairs constitutes a national embarrassment, a paradox for a country of international origin and global ambitions. The degree of free orientation and elective scheduling found in our schools, insufficient teacher preparation, a lack of uniformity in curricula, and duplication of effort are some of the causes. Our trading partners in Europe and Japan, in contrast, have mandatory programs in international issues and foreign languages starting in the primary grades.

Traditional American isolationism was a disincentive to the creation of international business partnerships. Our historic self-sufficiency and abundant resources did not encourage exchange. Global issues such as overpopulation and ecology were not problems for Americans and were ignored. We therefore failed to develop a sensitivity to the need for internationalism and global cooperation. Our basic education reflects these attitudes.

I.

If, as future citizens and leaders, our students are not to be handicapped by ignorance, they must learn to compete on economic terms, but more importantly on cultural and philosophic terms. In the past, subjective laws of demand-side economics prevailed; this is no longer the case. Students must become aware that American business partnerships are also cultural partnerships, requiring thorough knowledge of the region or country from the perspective of history,

foreign policy, economy and geography, as well as culture. The latter includes an understanding of institutional settings, religion, traditional values, family structure, and concepts of productivity and time. This is where teachers in basic education must stress the anthropologic and linguistic approaches, to help students understand the relationship between language and culture, and the resulting cultural uniqueness.

At the same time Pennsylvania has a great need to expand language study, both of European and other, lesser-known languages. For example, fewer than ten people in this country know any of the languages of Soviet Central Asia, although the nations of this region are potential trading partners with growing U.S.-USSR rapprochement. A more immediate need is for students to acquire proficiency in languages such as Chinese, Arabic, Hindi, Russian, Swedish and Swahili.

Japanese business people have the motto that the international language of trade is the language of your customer, and are required to learn the language of the area to which they are sent. We are unable to do business except in English. Even our embassy personnel are not required to, and rarely do, learn the language of the country in which they serve, giving the impression that we are arrogant and uncaring. Pennsylvania students must begin to acquire language fluency starting with basic education, and the fluency must be on a par with that of students in the most internationally-oriented countries. Not only conversational fluency, but also the ability to translate technical documents must be goals of foreign-language study, as more and more material is being published in non-English journals. Precious time, and with it our competitive edge, is lost while searching for translators or waiting for English translations.

International education cannot, however, be relegated to social studies and language teachers alone. Rather, it must be viewed as a philosophy to be built into the national psyche. Our students must gain a more global perspective by understanding such issues as human rights, conflict management and resolution, and world resources. Competence in these areas can be achieved only if all the major disciplines in basic education are cognizant of the need and cooperate in reaching the goal. Not until this is done will the United States be truly competitive on the international scene.

II.

Despite the concern over our incompetence in the international arena, basic education has changed only minimally due to weak directives, regional inertia, and a paucity of trained teachers. Most schools do teach appreciation of non-Western cultures to some degree, but all too often these are treated merely as history survey courses and do not provide the students with a sufficient degree of understanding. Global issues are addressed sporadically, almost by chance, rather than through a well-planned, district-wide, interdisciplinary approach. The teaching of languages has remained unchanged; few schools are attempting to offer courses in Russian, Japanese or Chinese, while some do not even teach the major European languages. Language budgets are the first to shrink, usually at the expense of less important but more popular programs.

Some inroads have been made through workshops and executive academies sponsored by the Pennsylvania Department of Education, or through collaboratives between colleges and school districts such as the ones sponsored by the Pennsylvania Council for International Education. These are attended mostly by social studies and language teachers, with less representation of teachers from other disciplines and from primary levels. Most of these activities emphasize greater use of foreign students in the classroom, organizing in-service days on international education topics, holding festivals, and providing foreign exchange professors as speakers. Hopefully, such collaboratives and activities will gain momentum and enlarge their scope. But they cannot be viewed as the sole solution; it is the students who must ultimately be educated, more so than the teachers, though obviously the former cannot be achieved without the latter. Furthermore, such activities are of minimal significance in raising the standard of international competence in the average student.

Another successful means is exemplified by special summer programs such as Summer Intensive Language Programs or the Governor's Schools for International Studies. Such programs, however, reach few Pennsylvania students. Further, although the students who do participate are intensely involved, receive excellent education, and are motivated to pursue international studies, the education obtained is often not retained. The year-long schools of international

studies such as those in Philadelphia and Pittsburgh do provide a more sustained education, but as with the summer programs, reach relatively few students. The same can be said of travel and exchange programs.

To provide Pennsylvania students with the needed competency in international education, basic education must begin by restructuring its curriculum. Every student must gain competence, primarily through social studies and language courses, and to a lesser degree through other disciplines. If international education is an imperative, then the necessary price must be paid by a lengthened school day and/or school year, special after-school programs, and closer cooperation and funding from the principal sectors of our economy. The necessary studies must commence in primary school, as they do in other countries.

Schools providing basic education need to work closely with institutions of higher education, both to draw on the diversity of their expertise and to provide them with better prepared undergraduate students. For example, the teaching of a minor language might be possible through the cooperation of several schools and a university, teaching it one or two afternoons during or after the school day.

Such cooperation applies also to business and labor. Interaction with the business and labor sectors is still largely unexplored beyond financial support. To investigate the possibilities, basic education should establish regular channels of communication and interaction, perhaps along the lines of the existing collaboratives between basic and higher education or the federal program of Partnership in Education. Business should forge a closer and more direct alliance with education and must invest the time, effort, and funds needed to help graduate the type of students who will require a minimum of additional training.

According to Partnership in Education, 4,600 business-education partnerships have been established since 1985. Despite the high number, however, there is little evidence of strong impact on international education at the basic level. The business sector must become more directly involved by supporting and directing creative projects related to their line of business, more frequent contact through liaison personnel, and active participation on local school boards.

If more companies established language competency as a requirement for employment, the best incentive for such study—financial—would be in place. Direct financial support through study-abroad programs for teachers and students, scholarships for teachers of basic education to study international affairs full time, and funding of school projects would demonstrate both their commitment and concern. As of now, corporate funding represents less than 2 percent of gifts and grants in this field. Long-range investment would pay off in the form of a more knowledgeable and creative work force. Small and middle-level firms as well as large firms or multinational corporations are entering the international arena and need employees with international expertise.

III.

National leaders call for business and political leaders to join in providing the leadership needed for a systematic, clear directive that will ensure competence in international education. More support is needed from all sectors if our ability to respond through the educational process is to catch up and outstrip the rapid growth of Pennsylvania's international involvement.

Many of the changes in school curricula have been promoted through efforts on the part of the government and through cooperation between higher and basic education. Government must further commit to support these efforts in ways that will not be subject to the yearly budget whims of the General Assembly. Spending must also be increased. Whereas France and West Germany allot nearly 1 percent of their national budgets to information and cultural expenditures, the U.S. government spends only about 0.1 percent. Nor do we compare to other countries in offering scholarships to students who wish to study international topics. Despite the creation of the Presidential Commission on Foreign Languages and International Studies, federal funds for international education have declined in real dollars by 50 percent. At the state level, the government is the most obvious and logical choice for providing direction, eliminating duplication of effort, and mandating specific, high standards for competence in international education.

Institutions of higher education are strengthening efforts to internationalize their own curricula, but insufficient emphasis is placed on preparing prospective teachers; fewer than one-tenth of pro-

spective teachers study international affairs. Few preparing to teach at the basic education level take courses in linguistics. Social studies teachers do not enter the field with sufficient preparation in cultural and anthropological studies. Government, together with higher education, must redesign the curricula as well as raise the national standards for teachers. Most of America's reputable futuristic think tanks, such as the Hudson Institute or Rand Corporation, predict a lifetime of education intertwined with work as a reality for the next millennium. The time to start preparing is now.

If we are to compete more effectively in international trade and assure a stable social and political system at home, we cannot be handicapped by our parochialism. The problem of weak international understanding among our students has been identified. Government, business, and education must now change direction and make the adjustments required to respond appropriately.

SECTION 5

Ideas and Realities: Pennsylvania Initiatives for International Competence

INTRODUCTION

This lengthy section briefly describes a colorful, indeed cheerful array of initiatives and programs addressing some aspect of efforts to develop international competence.* Imaginative people throughout this Commonwealth are trying to improve the teaching of geography, foreign languages, world history, world cultures, and international studies. Some programs use the study of science as an avenue into international awareness; others take advantage of modern communications technology. The rich diversity of ideas and educational as well as business programs is encouraging; it is a typically American response to a challenge: voluntary initiatives carried out in a pluralistic framework.

At the same time, it is painfully obvious that while these programs offer excellent educational opportunities for some of our students, they are still not available to most of them. We applaud, for example, the new initiatives in the teaching of geography and are especially grateful for the constructive involvement of the National Geographic Society. The fact remains, however, that all of our students, and not just some, should be learning geography. Similarly, we have made progress in "internationalizing" some of our college curricula, and indeed several of Pennsylvania's institutions of higher learning can be models for the country. Yet what is the situation on most of our campuses? The answer is that international education is still woefully inadequate.

There is much more going on in Pennsylvania than even this extensive listing indicates. It was virtually impossible for us to assemble a truly exhaustive description. Nevertheless, this section does clearly demonstrate that the resources for constructive change are in place, but that they need to be much more effectively coordinated. The goal must be to provide comprehensive and challenging programs in international education for the benefit of all Pennsylvanians.

*The authors of this section are identified in the list of contributors at the end of the book.

GEOGRAPHY IN INTERNATIONAL EDUCATION: RESOURCES IN PENNSYLVANIA

Ruth I. Shirey

Geography, as a school subject and as an academic discipline, is international in nature. It contributes strongly to global understanding through its focus on characteristics and directions of change in the physical environment, population, economic activities, land-use patterns, hazards, and culture, and the challenges and benefits of such changes to regional, national, and world societies. The discipline's integrating view of the relationships between society and environment in specific places leads to an understanding of the cultural, political, and economic reasons that locations are used as they are and of the flows that create global economic and environmental interdependence.

Recognition of geography's importance in any strategy to better prepare U.S. citizens for more effective roles in the world economy and international relations has been building since the Presidential Commission on Foreign Languages and International Studies reported in 1979. As the early 1980s focused attention on Americans' lack of global awareness, the discovery soon followed that much of the subject matter creating such awareness is taught in geography classes. Significant agendas were developed for returning geography to the classroom beginning in 1982. These have included initiatives by school districts, states, and the National Geographic Society (NGS), which is funding state geographic alliances and has created an education foundation to support classroom teachers of geography. In 1987 the National Governors Association endorsed a report calling for new emphases on the study of foreign languages, international studies, and geography.

Higher Education Resources

Academic geography in Pennsylvania institutions of higher education is in a comparatively strong position to respond to the new demand for international courses and programs. The Department of Geography at Penn State University is one of the top five Ph.D.-granting departments in the world. Its role in the discipline is comparable to geography departments at Minnesota, the University of

California at Berkeley and Los Angeles, the University of Wisconsin at Madison, and Oxford and Cambridge Universities. In recent years the Penn State department has developed a new emphasis on the study of earth environmental systems, reflecting the increasing vitality of physical geography as it responds to revolutions in technology, and international concerns about the direction of change and the threat of hazards associated with earth systems. The department also continues its emphasis on cultural landscapes, environment, resources, economic location and development, and other aspects of human geography that made it a leader in the field.

A number of universities comprising the Pennsylvania State System of Higher Education, Temple University, and the University of Pittsburgh at Johnstown have one or more undergraduate programs in geography. Indiana University of Pennsylvania (IUP), Shippensburg, and Temple have master's degree programs that contain varying combinations of course work in cultural/historical, regional, and urban/economic geography, regional planning and development, and cartography, remote sensing, and geographical information systems. Departments of geography are also found at the following Pennsylvania institutions: Bucknell, California (earth science), Clarion, East Stroudsburg, Edinboro, Gannon, Kutztown, Mansfield, Millersville, Slippery Rock, University of Pennsylvania (regional science), Villanova, West Chester (government/planning). A number of liberal arts and community colleges in the state also offer course work in geography.

At least two grant-funded projects in Pennsylvania are looking at the content of introductory courses in geography. The first of these is an Association of American Geographers (AAG) project funded by the U.S. Department of Education Fund for the Improvement of Post-Secondary Education, entitled "Improving Pre-Service Training in Geography for Middle School Teachers." A number of new course models, extensively evaluated and appropriate for all college students, are expected to emerge from the project in 1990. One of the codirectors of the AAG project is located at IUP, and one of the eight state centers of excellence is located at Kutztown University. The second project, funded by the U.S. Department of Education Title VI and entitled "Geography and International Education in the Undergraduate Curriculum," is housed at the PENN/PaCIE Institute

at the University of Pennsylvania. Its goal is the development of geography courses and units for liberal arts colleges.

Pennsylvania geographers' international networks and experience in many parts of the world are important resources. These contacts have been built through research projects, consultancies, and university linkage and exchange programs, and extend to universities, government, and business people in a large number of countries in all major world regions. Geography programs also have alumni in a number of countries. Membership in professional associations such as the AAG, the Regional Science Association, the Social Science Research Council, and the associations for Asian, African, Soviet and Latin American studies extend these networks to include virtually the whole of the geographic community active in various world regions.

Several departments of geography have established research laboratories to do contract work. Temple's Cartographic Laboratory produces high-quality graphic materials, as does the Deasy GeoGraphics Laboratory at Penn State. The capability of these laboratories will be well demonstrated when the *Pennsylvania Atlas* comes off the Temple University Press in late 1988. The IUP Spatial Analysis Laboratory provides software development, survey design and analysis, data-base design and data entry, mapping services, and location analysis. Slippery Rock's lab specializes in mapping and imagery services. Each of these laboratories was established to offer services not otherwise available in their regions and have capabilities for serving international needs as well as local, county, state and national needs.

Other Resources

Graduates of Pennsylvania geography programs hold positions in a number of organizations with international concerns. Some work in rural or regional economic or community development. Others serve as consultants or employees of government agencies such as the U.S. Agency for International Development, U.S. Foreign Service, various intelligence units, and at the U.S. Census Bureau. They work as cartographers, image analysts, geographic information sys-

tem specialists, and geographers in government and international businesses. Those with specialized skills in area analysis, site selection, and allocation of resources, are key people in information-gathering and analysis of market areas, both national and international. Such people play a major role in the decision-making that surrounds new market development for retail and financial firms.

Partnerships have formed between Pennsylvania's schools and universities to strengthen the teaching of geography. The Pennsylvania Geographical Society (PGS) and the Pennsylvania Department of Education (PDE) have cooperated to distribute the *National Guidelines for Geographic Education: Elementary and Secondary Schools* to all intermediate units, secondary school principals, superintendents, and private schools in the state; to train consultants on geographic education; and to distribute 1,000 packets of material for National and Pennsylvania Geography Awareness Week in 1987. The partnership continues with joint sponsorship of nine Geography Awareness Workshops at various locations across the state and preparations for the second annual Geography Awareness Week in November 1988.

The Agency for Instructional Technology's *Global Geography* Videotape Series has been the featured item in the PGS/PDE workshops. It is a well-designed, tightly packed series of ten 15-minute tapes to supplement textbooks and publishers' materials in the geography and/or social studies classroom. The series contains the five themes of geography from the *National Guidelines* and examines geographic issues in a variety of settings throughout the world. Although designed for middle school students, the tapes can be used successfully with high school and even adult audiences. They are the best single set of materials to become available for the geography classroom since the High School Geography Project in the early 1970s. The videotapes are available to most school districts in Pennsylvania from the directors of instructional media services in all intermediate units.

Teachers, school districts, and intermediate units will find university geographers and other teachers willing to consult on textbook selection, curriculum redesign, and other matters. Currently there are active school/university partnerships in several locations: Kutztown University working with Berks and neighboring intermediate

units in the Lehigh-Lebanon Valley area, summer workshops at Millersville and Shippensburg, the ARIN (IU #28)/IUP Academic Alliance on the Social Studies, California University and several school districts in southwest Pennsylvania. By 1989 these projects and the PGS/PDE partnership are expected to meld into a Pennsylvania Geographic Alliance funded by the National Geographic Society.

The central office of the National Council for Geographic Education is moving to IUP in July 1988, thus formalizing the national role in geographic education that IUP and other Pennsylvania universities have played for decades. IUP geography faculty and staff will be taking the leadership in providing services to the growing number of K-12 teachers in its membership. The council publishes the *Journal of Geography* (located at Texas A & M University), a newsletter, and a variety of special publications; it also provides a number of services to its members, including an annual convention. The 1989 convention will be held at Hershey, Pennsylvania, with the PGS and the Pennsylvania Council on the Social Studies.

This essay has attempted to identify aspects of the contributions that geographers and geography make to international education. Defining the outline of each of these areas will be the work of public officials, business people, and educators working in partnership with geographers. Potential users of geography may acquire additional information by contacting some of the following.

> The Executive Secretary of the Pennsylvania Geographical Society (Shippensburg University, Shippensburg, PA 17157; 717-532-1662 or 532-1685) can provide information on the Geography Consultant Network and other activities of the PGS, including dates of its annual meeting. Contacts with individual departments of geography can quickly lead to information about courses, programs, and consultants.
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> The AAG (1710 Sixteenth Street, Washington, D.C. 20009, 202-234-1450) has available the *Guide to Departments of Geography in the United States and Canada*, can recommend regional specialists who are members of the association, and can provide information on careers for geographers, skills that geographers bring to the workplace,

and publications on geography's role in international education and various international topics.

The National Council for Geographic Education (NCGE, Leonard 2, Indiana University of Pennsylvania, Indiana, PA 15705, 412-357-2250) can provide information on Council activities, publications, and opportunities for joining with other teachers to improve geography teaching.

National Guidelines for Geographic Education is available from either the AAG or the NCGE.

K-6 Geography: Themes, Key Ideas and Learning Opportunities, published by the Geographic Education National Implementation Project (GENIP), is available from the NCGE office.

FULTON ACADEMY FOR GEOGRAPHIC AND LIFE SCIENCES

Stanley J. Herman

Fulton Elementary School, an average City of Pittsburgh school, has experienced declining enrollment over the years as many parents in its neighborhood decided to send their children to one of the district's magnet schools. Apparently the magnets were perceived to offer improved quality as well as choice.

A partnership between the school district and the National Geographic Society has led to the emergence of the Fulton Academy for Geographic and Life Sciences. The school will be one of several adopted by the National Geographic, which has pledged both substantial financial support and the resources of its Washington, D.C.-based foundation. These include written and audiovisual materials for which the National Geographic Society has become internationally renowned.

The Pittsburgh School District sought and obtained the cooperation of the Pittsburgh Federation of Teachers in its effort to attract the most interested and qualified teachers in the city. As a result, approximately 100 teachers were interviewed for the 20 available positions. Teachers were selected on the basis of expressed enthusiasm for the program, prior teaching experience, and a desire to work with the scores of community agencies involved with geography or life sciences.

The curriculum, to be written by the Fulton staff, will utilize the input and cooperation of not only National Geographic Society consultants, but also staff from the Pittsburgh Zoo, Pittsburgh Aviary, Carnegie Museum of Natural History, the city Department of Parks and Recreation, the Pennsylvania Fish and Game Commission, the Western Pennsylvania Historical Society, the U.S. Department of the Interior, and the National Science Foundation.

The program will involve students in kindergarten through the fifth grade in an interdisciplinary program. At the earliest years, students will learn about location and direction by responding to mapping concepts associated with their classroom and school. Once these basic concepts are mastered, youngsters will study their neigh-

borhood and community. In the third grade they will study the city of Pittsburgh, utilizing a text written by Pittsburgh school staff, as well as Pennsylvania and its place in the nation. During the last two years of the program, students will examine the United States and selected world regions.

. Various geography professional associations have joined to establish the Geographic Education National Implementation Project. These professionals recommend that the study of geography should include several major themes. First is the concept of location—not only where a place is located but also why it is located where it is. Second is the concept of place, which involves the study of physical and human characteristics. Third is the relationships within places, or the interactions of people with their environments. Fourth is movement associated with people and their commerce, and interdependence among one another. Finally, regions are considered from the standpoint of defining factors such as language, culture or physical features.

Fulton Academy students will study these concepts from the perspectives of both geography and biology. Because the school is within walking distance of Highland Park and the Pittsburgh Zoo, students will come to understand why their neighborhood park has oaks and maples but not pine or orange trees. They will learn why Pennsylvania supports hundreds of thousands of deer but no lions or tigers. All of this will be easily incorporated into the curriculum because the concepts of community and regions, as well as the relationship of the physical world to the living world, are interests of both biologists and geographers.

The abundance of community resources will enhance the Fulton curriculum. When students learn about the tropical rain forest regions, they will visit the Carnegie Museum of Natural History's tropical rain forest exhibit. The Pittsburgh Zoo and Pittsburgh Aviary will have on hand a rich collection of the animals that inhabit that ecosystem. These field visits will add greater meaning to the school books and instructional materials.

The arts will also come alive as students discover concepts ranging from the protective coloration of animals to the masks and dances of various cultures and peoples. They will consider how music can

communicate thoughts and ideas among people, as song or roar communicates meaning among other animals. Students will chronicle their field studies by photographing and videotaping what they see and hear.

By participating in the National Science Foundation's Kidsnet Program, Fulton students will investigate various parts of the Pittsburgh region's watershed. They will gather water samples and test their mineral composition. Their data will be sent to a national mainframe computer where it will be combined with data collected by students from hundreds of locations across the United States. The returned analysis will enable students to understand how such phenomena as acid rain affect their personal lives as well as the economy of their city.

School district staff plan to extend the geography curriculum into the middle schools that will receive the Fulton Academy graduates. Eventually the program will include the high school level, with courses designed as electives in geography. To achieve a kindergarten through high school program, the school district hopes to involve geographers from the universities as well as representatives from local multinational corporations. There is little doubt that the future of our national economy as well as the local economy will involve a global perspective. At a time when many college students cannot locate Vietnam or the Persian Gulf on a world map, it is imperative that public schools assume responsibility for a rediscovery of geography.

A SELF-INSTRUCTIONAL GUIDED LEARNING PROGRAM FOR UNCOMMONLY-TAUGHT LANGUAGES

Ronald L. Gougher

For some time Americans have enjoyed limited opportunities to learn "uncommonly-taught" languages such as Japanese, Chinese, Modern Hebrew, Modern Greek, Dutch and Finnish. In Pennsylvania these opportunities resulted from the efforts of some concerned professionals who founded and developed the Pennsylvania Consortium for International Education (PCIE). They offered language tapes and materials to colleges, universities and secondary schools, where students could use the materials along with native-speaker conversation partners to learn such languages, mostly at the conversational level.

In 1974 PCIE was awarded a grant to support the teaching of uncommonly-taught languages. The grant was used to help acquire tapes that could be duplicated within the state university system and, ultimately, be used to promote self-instruction, a process in which able students use materials from texts, supported by tape programs, and then practice a few hours a week in conversation with native speakers of the target foreign language. Some foreign language departments in the Pennsylvania state system of higher education initiated programs for learning conversational Chinese, Japanese, Modern Greek, Modern Hebrew, Portuguese, Polish and Dutch. While some colleges used the materials sporadically, Indiana University of Pennsylvania and West Chester University have used them steadily for well over a decade. A few relevant facts and suggestions gathered from their experiences follow.

Each student who registers for these language courses is screened to determine whether he or she is capable of studying independently, as well as with a native informant, with satisfactory results. Experience tells us that students should also be tested after the first two or three weeks of the course, at the latest, to arrive at a final decision as to whether they should continue in this mode of study and language practice. Ultimately, each student consults with a native tutor and conversation partner at least twice a week for one and one-half hours.

The supporting printed text materials are best when they are written specifically to accompany self-instructional programs. Some of the best books for these purposes are Eleanor Jorden, *Japanese: The Spoken Language* and John DeFrancis, *Beginning Chinese* (both Yale University Press). These texts not only include materials for learning Chinese and Japanese, but they also present the students with learning problems, and offer answers and solutions. There is no need to learn Japanese and Chinese characters with these particular texts. Utilizing coordinated material makes it more likely that good students will progress and will derive greater benefit from the expertise of the native assistants than they would if supported only by texts normally used in teacher-directed situations. It is the responsibility of each student to prepare well. The informant-conversation partner is responsible for answering questions, helping students practice exercises and conversations based on the texts and tape materials, correct where possible, and report on his/her impression of each student's progress on a week-to-week basis. Ultimately grades are based on exams given by "expert" examiners from other institutions, whenever possible.

Obviously there are problems that need to be addressed. Some of these, with suggested solutions, follow.

1. How does one initiate these courses at a school or university? It is important to present a self-instructional, guided learning program to appropriate department and curriculum committee members. Both the strengths and the limitations of these programs must be considered from the beginning and reviewed periodically. Experience indicates that it is important to avoid conflicts where possible, and to acquire support from students, faculty members and administrators, as well as from local school districts, when appropriate.

2. How does one recruit, employ, train, and retain native informants and conversation partners? Native informants may be recruited from the community, local churches, service organizations and, in the case of universities, through the foreign student population, which has been found to be a readily available source. Within the state university system, we have attempted to develop a program that allows for waiver of tuition fees for foreign students who help to "internationalize" a university curriculum. It is also possible to pay

native informants a small stipend to act as conversation partners. To retain native informants, one must train them to act as conversation partners and encourage them to participate at all times. The National Association of Self-Instructional Language Programs (NASILP) has provided excellent videotapes to assist in such training.

3. *How does one acquire, distribute, and maintain the quality of materials for duplication?* One should buy materials that support self-instructional language programs. A good source of materials is Audio-Forum, Suite C92, 96 Broad Street, Guilford, CT 06437; (203)453-9794. Obviously it is very important to maintain quality master copies and to copy only from copies. Never make the mistake of using the master copy on a day-to-day basis.

4. *How does one acquire an "outside" examiner?* Sometimes it is possible to obtain outside examiners from local colleges and universities, private language schools and, when one is fortunate, on one's own campus; however, NASILP will generally provide a list of available examiners for those who wish to hire them for testing students at the end of each semester. Costs vary, but usually an examiner should be paid at least $150 per day. With the guided-learning concept in effect and quizzes given periodically, the examinations given by an outside examiner have generally been used to determine approximately 40 to 50 percent of the student's grade for the semester.

5. *How does one give quizzes and examinations?* We believe that quizzes are helpful to promote study, to guide students toward the final examination, and to determine whether each student is able to continue within this mode of learning; we therefore suggest quizzes every two or three weeks. In some programs, although not in our case, the result of the outside examination is the sole grade offered. We prefer the guided-learning process in which formative evaluations are given.

6. *How does one keep records?* It is important to keep adequate records. We list the behavior patterns of each student on a week-to-week basis. We give quizzes every three weeks and inform students what we believe their progress to be. We offer suggestions for improvement or reinforcement of good learning behavior. We also

keep a record of the examinations offered by our department and the native informants.

7. What sort of support staff is necessary? We have found it is good to have a graduate assistant who has been trained in foreign-language learning to assist. For example when six languages are offered, with as many as eight to ten conversation partners and outside examiners employed, it is almost essential to have someone help a professor for ten to fifteen hours a week, particularly given all the correspondence, record keeping, and problem solving involved.

8. How does one deal with resistance from a variety of sources? As with any special programs that are new and different, there is resistance from time to time. I have found one needs to take a positive approach and provide as much objective evidence and support as possible.

9. How does one deal with an alphabet other than the one used in standard English? When materials are not available to learn critical languages without learning new characters and an alphabet, there is no solution other than to have students learn the necessary alphabets and characters. Fortunately we do not have to learn Japanese and Chinese characters in order to learn conversational Japanese and Chinese because appropriate materials are available.

10. Are there other problems? One could, of course, list many problems. Obviously there are issues that need to be treated in greater depth than is possible here. Hopefully, however, opportunities for the study of uncommonly-taught languages will grow.

COLLEGE/SCHOOL TEAMWORK PAYS OFF FOR PENNSYLVANIA THE COMMONWEALTH PARTNERSHIP

Richard Kneedler and Marjorie Merklin

Competency in a foreign language...through the third or fourth year of a demanding secondary school program develops a student's language resourcefulness in a world community that increasingly expects that capacity. Such competency improves the comprehension of a student's native language and culture, and enhances the student's understanding of humankind.

Hardly surprising advice, you say? Consider the timing: February 1983. *A Nation at Risk* was released two months later. The crisis of secondary education was about to be proclaimed. So when the academic deans and provosts of twelve private Pennsylvania colleges joined together to articulate what constitutes good preparation for college, sound advice like the recommendation above caught the country's attention.

At the same time it was not anticipated that these institutions would do more than recommend substantial preparation in foreign language and six other academic areas so that students would "complete a strong academic program and not substitute other courses for those that are fundamental and exacting." But the enthusiastic response to the statement led them to found the Commonwealth Partnership. Planning grants from the William and Flora Hewlett Foundation and the National Endowment for the Humanities brought together nearly 100 secondary and college educators, who designed a four-year program in the humanities, culminating with a month-long immersion program abroad for 60 secondary-school teachers of French, German and Spanish.

Though different in many respects from the 1985 literature institutes and the 1986 history institutes organized by the Commonwealth Partnership, the 1988 foreign language program was based on the same key assumptions:

- that there are many secondary teachers who wish to pursue their own intellectual growth and would welcome, even crave,

substantive academic discussions with informed and stimulating colleagues;

- that both secondary and college teachers would benefit if they had the opportunity to develop a sense of intellectual community and shared mission;
- that the program had the potential to influence the deeper structures of faculty development programs and expectations within the Commonwealth.

The foreign language program centered around four-week institutes in Toulouse, France, Bremen, Germany, and Málaga, Spain. Sharing the unifying theme "Language and Culture: Continuity and Change," the courses focused on contemporary culture in the host countries, giving special attention to topics that interest American high school students such as family structures and customs, youth and popular culture, educational systems, economic and political issues, environmental concerns and technology.

Throughout the institutes, participants spoke only the target language. A substantial portion of each weekday was devoted to formal instruction, including presentations by guest speakers from the host cities and lecturers from local universities. Small-group sessions helped participants refine language skills. During each week, sessions focused on the application of new material to the classroom, both in terms of content and teaching strategies. Teachers had been primed for such discussions by a pre-institute workshop.

In addition to program-affiliated field trips, several other important aspects of the program took place outside of the classroom. Participants conducted independent research projects for later development into curriculum units and maintained written journals. To increase contact with native speakers, participants lived with host families and were paired with secondary-school teachers from the host cities, with whom they planned individual activities. Later this year, the Commonwealth Partnership will bring these teacher-partners from Europe for visits to the U.S. participants' schools and communities.

The three language institutes will convene formally two more times for post-institute conferences. These occasions will not only sustain the professional contacts established during the summer

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institutes but will also provide opportunities for the participants to exercise leadership within their field in their home schools and districts. To that end, each participant will invite a school administrator with curricular responsibility to the first conference and a colleague from their language department to the second.

Although the extent and degree of cooperation among the twelve Commonwealth Partnership colleges and between two levels of education is distinctive, we believe that collaboration on this scale is replicable. As the project continues to generate a real and continuing set of partnerships—personal, professional and institutional—across the Commonwealth, we welcome contacts from other educators interested in creating similar cooperative programs.

The twelve institutions comprising the Commonwealth Partnership are Allegheny College, Bryn Mawr College, Bucknell University, Carnegie Mellon University, Chatham College, Dickinson College, Franklin and Marshall College, Gettysburg College, Haverford College, Lafayette College, Lehigh University, and Swarthmore College.

PATHS AND THE SCHOOL DISTRICT OF PHILADELPHIA WORLD HISTORY CURRICULUM REVISION

Ellen Wylie and Howard Spodek

During a curriculum review day in June 1986, Superintendent of Schools Constance E. Clayton, responding to concerns raised by Philadelphia teachers, charged PATHS—the Philadelphia Alliance for Teaching Humanities in the Schools—and the Division of Social Studies with the task of developing a new world history program for the School District of Philadelphia.

As a result, more than seventy teachers, administrators, university faculty, and museum curators have been working together since January 1987 to address the existing curriculum in world history and to make a series of recommendations for creating a new world history program. This program will be based on the collective knowledge of veteran teachers and university and museum specialists in the fields of history, archaeology, anthropology, geography, literature, and art. A grant from the Rockefeller Foundation provided funding for the activities of the World History Planning Group.

After fifteen months of dialogue and deliberation, the conclusions of the Planning Group represent a remarkable shared vision among social studies teachers about how a world history course should be structured and what it should include. Their major conclusions are that:

- world history requires a two-year course of study;
- the world history course should be firmly anchored in chronology, while introducing tools for interpreting history and the study of change over time;
- the content of a world history course should include Western and non-Western history through comparative study of various societies and the interactions of different civilizations;
- geography should be integrated into each unit of study in world history;
- existing textbooks are inadequate for this type of world history course.

Principles of Organization

To address these issues, the Planning Group developed a program of sequenced staff development and curriculum design activities that will take place over the next four years. Teachers will participate in a series of seminars, design curriculum units based on their studies, and then pilot the new course in their classrooms. The staff development components will assist teachers in applying their own creativity and intellectual curiosity to the creation of a revised world history curriculum that is rich both in historical scholarship and classroom applicability. Our ultimate goal is to promote teacher leadership in the development and revision of curriculum.

Alert to both the teachers' concerns and the standards of the historical profession, university historians, working closely with Philadelphia teachers, designed ten staff development courses that:

- present information in chronological sequence;
- provide an interpretive framework explaining the significance of the discrete data—names, dates, places—which are the building blocks of historical study;
- demonstrate that "history" is not a fixed body of information captured between the pages of a textbook, but a disciplined method of examining change over time;
- introduce historiography—the debates through which historians assess the meaning of historical events and give life and vigor to historical study;
- see the world whole—neither restricted to nor centered upon Western civilization;
- integrate the social sciences, especially geography, and the humanities into the history curriculum;
- present the most recent scholarship in the field;
- integrate the study of primary documents and artifacts with contemporary interpretive historical materials;
- employ the rich collections of Delaware Valley museums and libraries;

- demonstrate the relevance of historical thinking as a means of understanding our world of today and envisioning creative and humane alternatives for our future.

The seminars are ordered chronologically; each has a special analytic framework; each examines the globe as a whole; and each is organized under the principal charge of a practicing historian from a Delaware Valley university while employing a number of guest lecturers to supplement the expertise of the course organizer.

To provide teachers with experience in working with the interpretive frameworks used by the professional historian, our staff development program introduces eight of the most frequently used historical themes—urbanization, politics, religion, trade, demography, social change, technology, and the evolution of the historical record itself. Each seminar pairs one theme with a particular chronological period to illustrate the utility of thematic interpretation for understanding and explaining change over time.

Whole-World Focus

In terms of "international competence," perhaps the most important decision in our staff development program has been to present the world as a whole. Too frequently world history, and the texts for teaching it, have been drawn from a basic grounding in Western civilization to which materials on non-Western civilizations have been added, presenting the world as if it were divided into two fundamentally distinct components.

We are preparing teachers to comprehend the integrated history of the world, not the history of different regions of the world. For more modern times, and wherever possible in the ancient world, this has led us to focus on interactions among various civilizations—through trade networks, religious contact, and the spread of ideologies. For example, we chose not to separate the rise of democracy and nationalism in modern Europe from the activities of Europeans within their overseas colonies, as is often done. Rather we evaluate the significance of European developments not only as they appeared at home, but also as they were seen through the eyes of colonized peoples. We look at the manifestations of Christianity not only in

the Mediterranean and European areas of its birth and early growth, but also in its diffusion to Latin America, sub-Saharan Africa, and East Asia. We examine Buddhism not only in India, where it was born (and has mostly died out), but also in China, Japan, and Southeast Asia.

Where contact between civilizations was minimal, especially when transportation and communication were less sophisticated, we draw thematic comparisons among various regions of the world. For example, we study the foundation of imperial China, 200 B.C. to 200 A.D., in tandem with the foundation of imperial Rome at about the same time, thus encouraging teachers to use the theme of political empire as a key to understanding both China and Rome.

Courses such as these, which span large time frames and include diverse regions of the world, are innovative not only at the high school level but even within the university system. The curriculum at most universities is not oriented toward world history, but toward the history of discrete regions such as the United States, Europe, and Latin America. The courses we have designed are not generally available in the current offerings of the universities in the Philadelphia area. Our program should therefore stimulate pedagogical innovation throughout the profession, not limited to the high school level, nor to Philadelphia.

GOVERNOR'S SCHOOL FOR INTERNATIONAL STUDIES

Kathleen White

The Pennsylvania Governor's School for International Studies represents a dynamic and multifaceted partnership among individual educators and educational agencies, representatives of business, government and community groups, and the citizenry—especially the participating students and their parents. Its establishment is a clear demonstration of the Commonwealth of Pennsylvania's commitment to international education.

The Governor's School is a five-week summer residential academy for exceptionally able and highly motivated secondary school students. Begun in 1984, it was the first such program in the country to be totally centered on the study of international issues, and it has become either the actual model or the point of departure for intensive summer international studies programs in Maryland, Tennessee, and Texas.

During the pilot years of 1984 and 1985, the fledgling school received substantial financial assistance from foundations and corporations headquartered in Pennsylvania as well as much in-kind support from the host institutions (University of Pittsburgh in 1984 and University of Pennsylvania in 1985). Now fully funded by the state legislature, the school is cosponsored by the Pennsylvania Department of Education, the state's 29 intermediate units, and the Pennsylvania Council on International Education (PaCIE).

The Department of Education works through the intermediate units to publicize the school and recruit applications from qualified high school juniors and seniors—approximately 1,000 each year. Local intermediate units conduct the initial screening. The Department of Education then convenes a state selection committee consisting of its own curriculum specialists, representatives from PaCIE, and members of the Governor's School staff to review the credentials of the top 20-25 percent of the applicants and to award the 60-70 scholarships available annually. The scholars selected are chosen on the strength of their overall academic records, their teachers' recommendations, a minimum of two years' foreign language study and/or evidence of functional knowledge of a second language, and their demonstrated interest in international affairs. The state

selection committee designates alternates in the event a scholar declines the award.

The other primary collaborator in the operation of the Governor's School is the University of Pittsburgh's Center for International Studies. Working in close cooperation with curriculum specialists at the Department of Education, the school's director plans and coordinates all aspects of the instructional program, including curriculum and program development, selection and training of faculty and staff, evaluation design, and follow-up activities.

The curriculum's overall design, set forth in the 1983 proposal drafted by the Education Committee at PaCIE, called for a balanced interdisciplinary program in the social sciences and foreign languages, with formal instruction in at least one uncommonly-taught non-Western language as a core course. The curriculum continues to focus on the social sciences—World Politics, International Economics and Global Change—and on linguistic studies—Language and Culture, Japanese and Japanese Culture. A formal course in Contemporary Leadership Issues and the computer-assisted International Communications and Negotiations Simulation (ICONS) have been added to provide students with a forum for analyzing their own leadership potential and a practicum for testing their foreign policy decision-making and negotiating skills.

Classes and other academic activities such as guest lectures and student-development workshops are regularly scheduled from early morning until mid-evening, Monday through Saturday. Because students are in residence and do not leave the campus for the duration of the five-week program, evening and weekend social activities have become an important means of extending the school's educational objectives. Thus foreign films, visits to neighborhood ethnic restaurants, concerts performed by international students, softball games and ice cream socials with visiting Japanese bankers, and student-organized debates are regular features of the "free time" schedule. Furthermore, in an effort to capitalize on the diversity of the student body and students' prior experiences, roommates are assigned with the intent of further expanding the students' cross-cultural and geographical networks.

Faculty members and residential assistants for the Governor's School are selected with the idea of creating a staff that brings together individuals with a wide range of academic backgrounds and international experiences. Course instructors are either university professors or distinguished precollegiate educators. Residential assistants tend to be graduate students in international relations, education, foreign languages, or other related fields; most have had significant overseas experience. Because all faculty and staff members are available to the students daily for the entire five weeks, students have many opportunities, both in class and outside, to learn more about the personal, professional, and cross-cultural experiences of the staff. Instructors as well as residential staff attend weekend and evening social events, and regularly join the students for meals in the university cafeteria. Several faculty members also reside in the dormitory, and all have easily accessible offices for meeting with students, either alone or in small groups.

Formal evaluation reports are prepared annually, with a complete accounting of the demographics of the student body, the results of student achievement as indicated by a variety of assessment instruments, and a comprehensive program evaluation. These and other evidence indicate that students benefit greatly from their Governor's School experience. Not surprisingly, graduates cite out-of-class learning as the most meaningful to them. For many this is their first opportunity to form close relationships with other students who share similar abilities and interests. They express excitement about finding new avenues for learning; research becomes an integral part of daily preparation and moves beyond the framework of historical and literary research to ethnomethodology. In studying interdependent global networks, they also come to appreciate the relationships among academic disciplines and gain skill in approaching problems through comparative studies.

With no grades given for course work, students are free to pursue learning for its own sake and to take intellectual risks that might put their class standing in jeopardy in their home schools. They learn to cooperate, to share responsibility for leadership, and to manage and order their time in productive ways. In many ways they undergo the "freshman year experience" in the course of the five-week program.

A very high proportion of Governor's School graduates major in areas directly related to international studies when they enter college. Nearly 50 percent of the graduates report continuing to study the foreign language to which they were first introduced during the program; some have even chosen to major in Japanese, either alone or coupled with another language or social science. Most report added confidence as a result of having participated in the program's rigorous curriculum. Many students have also decided to study abroad, seeking internships in government and/or international agencies, or doing extended overseas travel. While all of the graduates of the Pennsylvania Governor's School for International Studies are still either high school students or undergraduates, and thus are not yet in a position to make a dramatic impact on the educational or economic environment around them, there is every reason to believe that this cadre of specially-trained young Pennsylvanians will contribute much to the state's ability to fully participate in the increasingly complex global system.

AN INTERNATIONAL EDUCATION MODEL FOR THE SCHOOLS OF SOUTHEASTERN PENNSYLVANIA

Margaret H. Lonzetta

With 3200 members and over 500 programs a year, the World Affairs Council of Philadelphia works to promote understanding of the global political, economic, and social context in which Americans live, to stimulate public involvement in the formulation of foreign policy and, most vitally, to prepare students for responsible roles as future citizens and civic leaders in the Delaware Valley.

In keeping with this final goal, the council has sponsored a world affairs program for students and teachers in southeastern Pennsylvania for the forty years of its existence. From an initial effort limited to extracurricular programs for high school students, the council's program has grown to include federally funded classroom programs for elementary and secondary students and the cosponsorship of a public high school for international studies.

The council's education programs are solidly established in the major school systems of the Greater Philadelphia area, having received enthusiastic support over the years from the School District and the Archdiocese of Philadelphia, and the public and private schools of suburban areas. Satellite programs have also been created in surrounding counties. Classroom teachers make extensive use of the materials, guest speakers, conferences, field trips, and other resources offered under the auspices of the council.

The elementary and secondary department of the World Affairs Council has the following major components:

1. A comprehensive series of activities for senior high school students dates from the council's early days. There are currently 200 high schools affiliated with the council. Membership, with no fee, is open to any school willing to designate a faculty sponsor to serve as a liaison between the school and the council. Among the major activities offered are semi-annual international affairs conferences with scholars, statesmen and policymakers; briefing sessions at the United Nations and in Washington, D.C.; and simulations including an annual Model United Nations, Model Senate Foreign Rela-

tions Committee Hearings, and computer-based programs that enhance decision-making skills. Outstanding high school leaders from throughout the Delaware Valley attend major World Affairs Council membership and subscription events.

2. A classroom-based program for educationally disadvantaged students in selected School District of Philadelphia schools was initiated after passage of the Elementary and Secondary Education Act of 1965. Known as the Education in World Affairs Project, this ongoing cooperative arrangement between the council and the school district has directly served thousands of students in its twenty years of operation. The project is designed around global themes and emphasizes reading in the content area of social studies. The World Affairs Council staff develops and selects appropriate instructional materials, plans off-site instruction at local museums, and arranges for classroom presentations by guest speakers. Three fully certified teachers on special assignment from the school district work at the council for a three-to-five-year period to implement this project and to provide support for the council's overall school program.

3. In 1981 the World Affairs Council and the School District of Philadelphia commenced cosponsorship of the William W. Bodine High School for International Affairs. The first of its kind in the nation and the only school cosponsored by a private world affairs organization, this is a magnet school devoted to a curriculum of foreign languages and international studies. (Pittsburgh's International Studies Magnet at The Schenley High School Teacher Center began in 1983; see following article.) The role of the World Affairs Council is to provide the enrichment program for students and staff; it has arranged visits of foreign dignitaries, diplomats, journalists, political leaders, astronauts, scholars and other specialists; raised funds for travel abroad and student exchange opportunities; developed paid and unpaid internships in international work settings throughout the Philadelphia metropolitan area; created an annual honors seminar; planned field trips including a visit to the U.S. headquarters of Mitsubishi and a visit with the Chairman of the House Foreign Affairs Committee; and conducted an intensive recruiting program to ensure a high quality student body.

4. A program geared to the middle/junior high school student population was created to help recruit students for the William

W. Bodine High School for International Affairs and to develop leadership for World Affairs Council programs in senior high schools. Entitled "Seeing the World Through Philadelphia: The International City," this program endeavors to increase students' knowledge of global issues and introduces them to the international aspects of the region. At this level, too, education in world affairs is incorporated into the school curriculum. The council's education staff and participating schools' faculty sponsors jointly develop an intensive study plan based on selected global topics.

5. To assist educators in expanding their horizons, the World Affairs Council also provides enrichment programs on international issues and teaching strategies specifically developed for elementary and secondary school teachers and administrators. Included are in-service courses, staff-development sessions, conferences on current topics featuring policymakers and scholars, a Foreign Policy Institute sponsored in cooperation with the School District of Philadelphia, an annual briefing trip in Washington, D.C., and a study tour to the People's Republic of China. Since 1985, through support from the Danforth Foundation, the council has formed teams of teachers to increase the effectiveness of international affairs education at the local level; organized an annual conference/retreat with presentations and group discussions involving representatives of the university and corporate communities; and promoted interaction between teachers and school administrators, and council members from varying professional backgrounds.

The World Affairs Council's education program has traditionally enjoyed the support of civic, corporate, and academic institutions in the Greater Philadelphia area. A steering committee of business leaders was instrumental in launching a successful internship program on behalf of students at the William W. Bodine High School for International Affairs. An advisory committee with representatives from the public and private sectors helped to establish procedures for overseas travel programs. Museum and cultural institutions support the council's services to students and teachers through their education and outreach departments. The university community has traditionally assisted in the development and implementation of the council's school program.

America's role in world affairs is changing, making it imperative to increase the competence of this nation's citizens. As the groundwork for international education must be laid in the schools, a new organization, Alliance for Education in Global and International Studies (AEGIS), was launched in the spring of 1988 to improve the international dimensions of elementary and secondary education. The World Affairs Council has played an active role on the charter drafting committee of this organization and is represented on its first Board of Directors.

The elementary and secondary education program of the World Affairs Council of Philadelphia has experienced dramatic growth over the past four decades. The council's presence in the community is strong. Students will continue to be the primary focus of the education program, but closely related will be an expanded international affairs education program for teachers.

PITTSBURGH PUBLIC SCHOOLS INTERNATIONAL STUDIES PROGRAM

Richard C. Wallace, Jr. and Stanley J. Herman

Proficiency in more than one language, long regarded as a refinement in American education, is gaining increasing recognition as a basic necessity. Americans who wish to compete academically, commercially, and culturally with the rest of the world must have a working command of the major languages of the world and must be sensitive to the social and cultural distinctions of other nations.

The Presidential Commission on Foreign Languages and International Studies, which met during 1979 and 1980, emphasized the need to establish foreign language and international studies high schools or programs. The Pittsburgh School District laid the foundation for such a program in 1979 with the opening of its elementary International Studies Magnet option. Successful beyond all early expectations, the program now offers a carefully articulated course of study from first grade through twelfth. Students may enter the program at grades one, six or nine, and all may expect to benefit from the study of foreign language and the expanded social studies curriculum. Those students who have been in the program for the greatest number of years will obviously benefit the most.

Elementary School International Studies Magnets

Children in the first grade can acquire a second langauge as easily and enjoyably as mastering their native tongue. Teachers who are fluent in another language as well as English incorporate the second language into the regular basic curriculum and daily routine. The young children listen attentively when their teacher speaks to them in the second language, acquiring understanding with amazing speed and soon responding verbally as well. They emulate the native sound in speaking. This aural/oral approach is continued throughout the elementary years, with reading and writing in the second language gradually introduced in grades three, four and five.

Children learn the vocabulary, customs, music, foods, and cultural distinctions of people in another country. They also learn to appreciate how other languages have enriched English and how

pluralistic customs have enriched the American way of life. A choice of Spanish, German or French is offered in several elementary schools.

Most elementary international studies classes adhere to the partial immersion model, in which students remain with their bilingual teacher and are exposed to the second language throughout the day. In addition to a specific period of foreign language instruction, other academic subjects may be reviewed in the second language, thus reinforcing both the subject matter and the language. Children are surrounded with visual reminders of the country and language they are studying.

In the pull-out model, which accommodates the open-classroom style of teaching, children group for a common foreign language lesson at a specific time once during the school day. The other classes from which the children are "pulled out" vary from day to day so that time borrowed from other subject areas is evenly distributed. The language teacher also reviews other academic subjects in the foreign language.

In overall achievement, elementary students in the International Studies Magnet have consistently performed as well or better than their peers on local and national examinations. In oral proficiency interviews conducted with fifth grade students, they were judged to have about the same overall level of speaking proficiency as high school students who had studied a foreign language for two years. The younger children, however, spoke with near native pronunciation and were much less inhibited than the high school students in using the language in conversation.

Middle School International Studies Academy

The Frick International Studies Academy accommodates not only the increasing numbers of students matriculating from the elementary International Studies Magnet classes but also students who are entering the program at the sixth grade level. Frick is a large, fully equipped middle school facility, complete with full-sized gymnasia, a swimming pool, cafetorium, library, and occupational/vocational/technical education classrooms.

Students form the elementary international studies classes have the opportunity to pursue advanced studies in French, German and Spanish, taught daily, and may also use their foreign language skills in other academic subject areas. Sixth grade students entering the program have daily beginning level foreign language instruction, with the aural/oral emphasis; they also benefit from association with the more fluent advanced students.

Besides the foreign language teachers, some of whom are native speakers of the language they teach, many of the teachers in subject areas are selected on the basis of their certification and proficiency in at least one of the three foreign languages taught at the academy. Thus children are exposed to other foreign languages in varying degrees, in addition to intensive study of their target language. An international aura pervades the school, and students' consciousness of themselves as citizens of the world is encouraged in numerous ways. Major festivals are celebrated with traditional singing, dancing, drama, and food; programs are performed by students of the particular language.

Secondary School International Studies Magnet

The secondary school International Studies Magnet is located at the Schenley High School Teacher Center. When the program began with ninth grade students in 1983, the most interested and capable instructors were recruited from the district's high schools. (This was the second such program in Pennsylvania; the first was the William W. Bodine High School for International Affairs in Philadelphia, founded in 1981.) With the assistance of the University of Pittsburgh, Carnegie Mellon University and several others, the staff wrote curriculum and participated in intensive staff-development training.

The curriculum prepares students to live and prosper in a multicultural, multilingual community—to communicate across cultural barriers. To that end, each student must study a foreign language for four years. Schenley students who have attended the elementary and middle school components of the international studies magnet

program are expected to have attained functional proficiency in their target language. Students are also encouraged to study a second foreign language.

The expanded social studies curriculum is taught from a global perspective, interrelating with the study of foreign language and world literature. The required four years of social studies begins with an examination of U.S. government, politics and economics in comparison with other governmental, political and economic systems of the world. Pittsburgh's position in the global landscape is emphasized. American history, with particular emphasis on international implications, is taught in the second year. This arrangement allows a two-year sequence of world cultures and European history for prospective candidates for the International Baccalaureate diploma. Seniors may also choose the International Studies Seminar, a small class that makes an in-depth study of a few major global issues, such as immigration, human rights, and the media from around the world. Distinguished professors from the University of Pittsburgh and Carnegie Mellon University have participated in the design and development of these advanced courses and are sharing teaching responsibilities in the classroom.

Although foreign language and social studies are at the heart of the International Studies Magnet, all five subjects in the core curriculum have been modified to include an international perspective. Biology, for example, emphasizes global ecology, giving students an opportunity to examine the balance of life in particular environments. Unified Mathematics, the European approach to mathematics instruction, incorporates elements of logic, algebra, and geometry in a sequence different from the segregated Algebra 1, Geometry, Algebra 2 approach. Literature courses lead students to an understanding of the thinking and cultural traditions of many peoples of the world in addition to Americans and Western Europeans.

In 1985 Schenley High School Teacher Center became the first tri-state area high school and one of fewer than 200 U.S. high schools to offer the International Baccalaureate as an option for students during their last two years of international studies concentration. The program's governing board in Geneva, Switzerland, granted the authorization after the school had documented its capability to teach the highly intensive but internationally standardized curriculum.

The International Baccalaureate was originally developed in the early 1960s to provide a uniform curriculum for secondary students who moved regularly from country to country in Europe. It was designed with common standards and goals for all participating countries.

Eligible students in the program may elect to sit for examinations designed and graded by the International Baccalaureate Office. Exams and grading are uniform for all students worldwide. To be awarded a diploma, students must satisfactorily pass examinations in six academic areas, conduct independent research in a selected area over a two-year period, write and present a scholarly paper on the research project, document extensive community participation in aesthetic or public service activities, and complete a unique course entitled the Theory of Knowledge, which investigates various philosophies. Those who earn the diploma are given advanced standing in colleges and universities such as Carnegie Mellon, Harvard, Yale, University of Michigan, and Bryn Mawr College.

Cooperative Ventures

Representative of the cooperation between the Pittsburgh School District and the university community is the relationship between the international studies program and the University of Pittsburgh's Center for International Studies. Cooperative ventures include a teacher exchange with a Japanese city and a plan to teach foreign languages at Schenley after school and on Saturday mornings. These classes would offer instruction in any language for which enough people were interested to form a class and would be available for high school and middle school students and their parents.

Local universities are also involved in evaluating the foreign language program. University staff trained in oral proficiency testing evaluate the conversational ability of students in the International Studies Magnets. Results, which are measured against absolute standards, are used to monitor and adjust foreign language instruction.

Another cooperative venture is the International Language Camp, first launched in August 1987 on the campus of Chatham College for the benefit of students interested or already enrolled in the International Studies Magnet. More than 100 students in grades seven

through ten enjoyed a simulated foreign-living experience that immersed them in the language, commerce, customs, cuisine and leisure activities of France, Germany, Spain, North Africa, and Latin America. District foreign language teachers, native speakers from Central Africa and Costa Rica, local university students, and upperclass students from the Schenley International Studies Magnet staffed the camp, under the direction of an experienced Duquesne University teacher.

To remove the students as much as possible from American culture and amenities, "customs officials" at the border seized all contraband, such as chewing gum, colas, novels, radios, and American money as passports were checked and declarations made. Learning the proper way to cook and eat escargots and frogs' legs, doing aerobics with a German rock group, fencing, and salsa dancing replaced MacDonald's, baseball, and heavy metal for one week. Operating for the second time this summer, the camp is expected to become an annual event.

INTERNATIONAL EDUCATION IN HERSHEY

Benjamin P. Ebersole

Hershey, Pennsylvania, is a melting pot that blends international cultures and home-grown enthusiasm in its education. The rich ethnic heritages of German, Italian and Scotch-Irish, the economic ties with Hershey Foods, the varied backgrounds of Hershey Medical Center's students and faculty, all present a milieu for international study, understanding, and appreciation.

The concept of international education is certainly not new in Derry Township schools. Emphasis on global education has been a focal point in social studies, English, art, music, and home economics programs. Foreign language courses ranging from two to four years have always been essential for college-bound students. Classroom programs featuring speakers who have lived, traveled, and studied in various countries have enriched students' knowledge of other cultures.

In an effort to promote universal appreciation and understanding, Hershey's schools designated a week for international activities and emphasized foreign languages and cultures. Assembly programs, classroom activities, poster contests, culturally-inspired menus, and programs featuring foreign exchange students were offered. Students participated in trips abroad, and along with staff, parents and community, they attended events sprinkled with international flavor. These ingredients became the base for a partnership supporting a solid curricular beginning for continuing international study.

The realization that students need a broad, in-depth perspective to view international conditions and global issues and challenges has encouraged the community and the schools to support such programs. Our commitment is to provide educational opportunities that promote wise decisions and constructive attitudes with emphasis on geographic, political, economic, social, cultural, and aesthetic aspects of the world.

In keeping with this resolve, Derry Township has made international education a priority curricular and instructional goal. Teachers, administrators, parents, community agencies, students,

and citizens have united to form a school-community international education committee. The Educational Support Team has chosen international education as one of five action areas for curricular emphasis. This eight-member steering committee has developed the following plan of action:

- to compile and organize resources to support the international education program;
- to develop and implement effective short-term curricular and extracurricular programs and projects for international education awareness, interest, and understanding;
- to develop an agenda, schedule, and list of participants for a continuation of the International Education Week concept;
- to examine the existing curriculum and instructional programs and plan for continued development of international topics for inclusion in existing curriculum;
- to establish goals and institute a strategic long-range plan for international education in Derry Township.

A computerized list of resource personnel has been compiled, and a curricular match of existing international concepts and topics is being explored.

To advance international education in Derry Township, future goals include establishing an international resource center, offering a graduate-level course entitled "International Education in Interdisciplinary Curriculum," scheduling a five-part lecture series for school and community, securing scholarships for students and staff to study abroad, planning and implementing intensive summer immersion experiences in language and culture for students, establishing an electronic communication network with European, South American and Japanese schools, and developing interdisciplinary curricula and courses.

Hershey understands the importance of international education and is committed to supporting deeper and broader understanding as the first step in an effort to make the world a better place to live.

INTERNATIONAL EDUCATION WITH WEATHER SATELLITES

Helen E. Martin

If the United States of America is to survive in the next century, its citizens must be prepared to function in the international arena and to comprehend the concept of the global village. The citizens of the 21st century are in our nation's schools today. We must do all we can to prepare them to use existing technology and to come to terms with its global implications.

The weather satellites of many nations can be used to internationalize curriculum in the most intriguing manner. At the same time, these satellites provide the opportunity for students to behave as scientists, applying principles of physics and utilizing computer technology; and they encourage interest in geography, political science, and international relations.

Two types of satellites are used to monitor the earth's weather: polar orbiting satellites and geostationary satellites. The former orbit the earth with a period of from 101 to 110 minutes. The United States and the Soviet Union are the only two nations currently operating satellites in this mode. The People's Republic of Chine is due to launch this type of satellite in 1990. It is currently possible for school students to access direct readout data from the U.S. and the Soviet Union with relatively simple equipment. The classroom teacher needs no formal training to do so.

Geostationary satellites orbit the earth every twenty-four hours in an orbit that is synchronous with the earth's rotation. Thus, they always appear to be in the same place in the sky. The United States operates GOES (Geostationary Operational Environmental Satellite) East, GOES Central, and GOES West. The European Space Agency operates a satellite known as Meteosat; India operates Insat, and Japan operates GMS. At times, data from Meteosat is broadcast on the GOES satellites.

Polar orbiting data is stored as the satellite orbits the earth and is downloaded to Wallops Island, Virginia. The data collected from all over the world is then enhanced with grid marks, lines of states and countries, and identification. The GOES data is also down-

loaded to Wallops Island, enhanced, and identified. All of this data is sent up again to GOES and downloaded next as WEFAX, or weather facsimile data. Students can access WEFAX data with simple equipment similar to that used for direct readout data from the polar orbiting satellites. The uses for this data and its reception are limited only by the imagination of the educator who establishes such a weather satellite tracking station.

During the 1983-84 school year, the students at Unionville High School established a data reception station. The Earth and Space Science course, for which the project has become the focus, has tripled in size and added a second and third year of study to allow students the opportunity to become involved.

The applications for teaching geography became obvious the first week the station was operational. One student remarked, "Is that Cuba? I never knew Cuba was so close to the United States!" It became necessary to send students repeatedly to the library to check the atlas. Soon every map in the classroom became the object of constant study. We could hardly believe our eyes when our station received pictures of Baja California, Greenland, and Iceland. The Baffin Islands became well known as did the Yucatan Peninsula. When the Shuttle disaster occurred, my students immediately asked, "What did it look like from a weather satellite?" The question was repeated when the nuclear disaster occurred in Chernobyl.

The Soviet satellites have proven to be a fascination. One student analyzed their orbits and announced to the school when a new one was launched. Another puzzled over why a satellite turned off during a solar eclipse. Did the moon cast a shadow on the solar panel? Or, do the Soviets operate satellites on percentages of reflected light from earth?

Students are divided into six committees: Research and Development, Public Relations, Finance, Construction, Computer, and Political Action. They are organized under class chairmen and a project director. The Political Action Committee worked diligently to prepare a resolution relating to several issues involving weather satellites. A delegation then traveled to Washington to present their views to their Congressmen and Senators. To prepare the resolution, the students needed certain information that could only be obtained

from the World Meteorological Organization located in Geneva, Switzerland. Since time was of the essence, I allowed them to use the phone in the classroom, funded by the Finance Committee. Suddenly the students came running from the phone asking if anyone spoke French. It seems they had reached a secretary in Switzerland who spoke no English. The students then said, "Miss Martin, we need to learn French for science class." Foreign language study had suddenly become important.

Perhaps the most exciting global aspect of the Unionville project is the Student World Wide Weather Watch. After presenting the project in the United Kingdom in January 1987, a British teacher, Adrian Beaumont, and I began to discuss the reception and use of satellite data in the classrooms of our respective countries. I knew the range of reception in Unionville was from Baja California to Greenland. I asked what the range was in the London area from the direct readout data of the polar orbiting satellites. Adrian noted that his range was from Greenland to Chernobyl. I suddenly realized the implication of this and asked how many schools would be needed to see a view of the entire earth using only the data from the polar orbiting satellites.

The idea was born. Through cooperation from many individuals—Pennsylvania State Representative Joseph R. Pitts, Secretary of Education Thomas Gilhool, and West Chester University—Unionville High School will become the center of a network of schools around the world. Some have already been identified: the Frank Hooker School in Canterbury, England, and Port Angeles High School in Port Angeles, Washington. Others have agreed to be part of the network in China, India, Bruni, Nigeria, Kenya, Germany, and Israel. Some contacts have been made in Mexico, New Zealand, Australia, Brazil, and Ecuador. Other contacts have yet to be made.

We hope to have completed the first real time-sharing of data with one or two schools by the time this book is published. We also hope that each school will become the center of its own local network and that students and teachers from around the world will meet to set joint objectives for the network. At this stage we can scarcely imagine what the resulting interaction of science, technology, and society on a global scale will mean for our students, but we believe it will be well worth the effort.

A satellite is the perfect symbol of international education, for it circles the earth and provides information to people everywhere. Students are captivated by this opportunity to study the earth with remote-sensing equipment. From space, boundaries between states and nations disappear. From space, ones does not see an earth separated by linguistic, political, or religious boundaries. With this perspective in their backgrounds, today's students—citizens of the 21st century—will have a deeper respect for their peers around the world and be prepared to function in the global community of planet earth.

INTERNATIONAL EDUCATION COLLABORATIVES

William C. Vocke

The Pennsylvania experience in international education collaboratives began through a joint effort of the Pennsylvania Department of Education (PDE) and the Pennsylvania Council for International Education (PaCIE). PDE convened a statewide conference in March 1987 and invited embryonic collaboratives. The formation of regional teams was encouraged, and these teams came together in Harrisburg to discuss the opportunities available for promoting an international dimension of education. Initially nine groups emerged. Since the first call, each area has responded in a distinctive fashion and with varying intensity.

The aim of the PDE/PaCIE conference was to build partnerships among elementary, secondary, and post-secondary educational institutions, and to reach out to local business and community groups. The guiding principles as defined in the initial charge included:

- recognition of mutual interest and a shared agenda;
- identification of needs by teachers and schools, with post-secondary institutions acting as facilitators;
- sharply focused activities designed to stimulate change;
- encouragement of both disciplinary and interdisciplinary approaches.

These remain fundamental principles. An additional conclusion needs to be added after the first year and one-half: The success of a collaborative depends on both local commitment and the adaptation to local needs. Two of the collaboratives illustrate the types of activities and challenges faced.

The Greater Philadelphia Collaborative on International Education (GPCIE) has met ten times since March 1987; has held a regional day-long conference on "Latin America in the Year 2010 A.D.: Present Crisis, Future Trends," with 95 elementary, secondary, and post-secondary teachers (representing all five counties in the southeast Pennsylvania region: Bucks, Chester, Delaware, Philadelphia and Montgomery); and has raised $2,000 of its own funds from the Archdiocese of Philadelphia, Villanova University, the Association of Catholic Teachers, and conference participants.

Within the five-county region, the present collaborative represents the following institutions: 11 public high schools, 10 Catholic high schools, 6 independent schools, 4 colleges and universities, and 3 professional academic associations. The collaborative has planned the following activities for 1988:

- monthly meetings at different locations within the five counties;
- a spring half-day conference on "Latin American Culture and Society" at the University of Pennsylvania's University Museum;
- a reading discussion on Latin America or international education as part of a monthly meeting;
- a fall all-day conference on either Asia, the Middle East, or the Soviet Union;
- visits to various resources within greater Philadelphia as part of monthly meetings.

One of the challenges facing GPCIE is maintaining its momentum. The Philadelphia area presents both a blessing and a handicap in the promotion of international education. The blessing is the dense and diverse concentration of educational, community, and business resources. GPCIE can tap scores of committed and qualified people. That richness, however, means that people and programs are faced with competing choices that are sometimes difficult to reconcile. It is in this milieu that GPCIE has begun defining its unique place in Philadelphia.

In contrast, the Central Pennsylvania Collaborative for International Education (CPCIE) faces a lean environment when it surveys the international education efforts of many of its school districts. This dearth of resources, however, offers a clear and compelling opportunity. When the collaborative reaches its potential, it could encompass an area of eleven counties in central Pennsylvania. These 8,574 square miles include parts of Appalachia, rural farms, rust-belt communities, and one of the most rapidly growing metropolitan areas in the state. The population density ranges from 29 people per square mile to 285 per square mile. Within the region to be served are 3 intermediate units of the Pennsylvania Department of Education, 66 school districts, 141 private elementary schools, 41 private secondary schools, and 7 institutions of higher education. Approx-

imately 125,000 school-age young people reside in the area. The geographic diversity and frequent isolation represents a significant challenge.

The collaborative was formed to encourage the development of an international dimension among the students, teachers, and community leaders of Central Pennsylvania. It has been seeking ways to form a network of teachers interested in international studies. Recognizing the increasing pressures placed on schools, businesses, and communities by the world beyond the Commonwealth, CPCIE wants to be ready to meet the challenges and opportunities that will come with the 21st century. An understanding of other people, languages, cultures, and systems will be crucial for America's survival and prosperity.

International education in Central Pennsylvania aims at fostering visions that see the beauty and promise of the Appalachian highlands linked with the challenges and diversity of a wider world. The steering group of some twenty people represents many divisions that often plague international education efforts: educators and community leaders; teachers and administrators; elementary, secondary, and post-secondary; public and private; local districts and regional units; large and small; Appalachia and university town; languages and social sciences; content and pedagogy. What is surprising is the shared sense of direction, common purpose, and commitment. One crucial decision has been to use this diversity as a source of strength. CPCIE has intentionally rejected the temptation to move toward groupings based on discipline or job category.

The steering group has met regularly around the region and held a successful symposium on October 15 and 16, 1987, at Juniata College entitled, "Opening Our Windows on the World." The symposium included all the segments of international education and had four purposes: to enthuse, inform, plan, and act. These were addressed sequentially with nationally-known speakers leading into panel discussions, followed by simulation, student feedback, classroom case studies, and district planning. More than 100 people attended all or part of the symposium, representing post-secondary institutions, intermediate units, districts, business, and a nonprofit organization. Another conference is planned for October 1988. The Pennsylvania Department of Eduction has provided limited fund-

ing for both conferences. The group has also formulated a long-range plan of activities to enhance international education experiences for teachers and students.

The collaborative spent the past year assessing what is being done in the field of international education in its region. The investigation showed that while there is substantial interest, efforts lack sequence, structure, and substantive depth. There is a critical need for organized communication between institutions and teachers committed to international education for specific elementary and secondary teacher-training experiences.

The collaborative has developed a tentative six-year plan toward this end. It provides the framework around which a comprehensive set of teacher-education experiences, intradistrict student-learning activities, a regional international education information network, and a series of seminars and conferences can be provided in a systematic manner that lends itself to both formative and substantive evaluation of results. To have an impact, a place must be found in the curriculum for this endeavor. The most accessible and appropriate segment seems to be the "Current Events" component, which in one form or another is part of the K-12 curriculum in most districts and is often more flexible than the language, culture, or social studies components.

Six geographic regions have been identified, and one will be emphasized each year. An organization framework has been defined and will be used to determine the content and the activities for the year's study. Each year's three-part program will begin with a summer institute in August, immediately prior to the beginning of the school year. Participating teachers will receive in-depth information about the region and issues selected for that year and instruction on how to focus the study via current events. At a conference in October, major speakers will present ideas and positions about issues in the region. Teachers and students involved in a network of schools using a computer-based simulation will receive specific instructions about the study process, and the year's activities will be finalized. A spring seminar in May will conclude the year, with teachers and students drawing conclusions about how to deal with the area and issues studied.

Members of the CPCIE sincerely believe the role of international studies must be expanded if young people are to be prepared to live with their neighbors in the next century. The collaborative has pledged to:

- Increase the awareness and cultural resources available to teachers and students to further enhance their understanding and appreciation of the diverse cultures of their community and world.
- Promote a school environment that celebrates diversity, encourages cooperation, recognizes individuality, and actively promotes the principles of opportunity, equity, and personal decision-making.

This mission is reflected in the activities of the nine collaboratives throughout Pennsylvania: Carlisle area, Harrisburg area, Pittsburgh area, Central Western Pennsylvania, Scranton-Wilkes Barre, Central Pennsylvania area, West Chester and Downington, Greater Philadelphia, and Kutztown-East Penn-Allentown. The two illustrated here represent only a small sample of the activities and a narrow slice of the commitment and effort.

THE PENN/PaCIE INSTITUTE FOR INTERNATIONAL EDUCATION

David G. Burnett and F. Bruce Robinson

The PENN/PaCIE Institute for International Education has served the colleges and universities of the Commonwealth since 1983. Housed at the University of Pennsylvania, the Institute is a program of the Pennsylvania Council for International Education, a consortium of post-secondary educational institutions throughout the state. All institutions of higher education, whether public or private, two-year or four-year, are eligible to participate.

The Institute was formed to help faculty and administrators create international education and foreign language programs on their campuses. Funded by the U.S. Department of Education through Title VI, it provides the seed money, outside expertise, and planning structure needed to implement and sustain new ideas.

Because the concept "international" is a dimension of all academic disciplines, program development requires a multidisciplinary team approach. The Institute bases its assistance on this model. A faculty/administrative team proposes a project to strengthen foreign language teaching and/or international education, and justifies the idea in terms of institutional goals, mission, and location. The Institute then assigns to the team an experienced consultant with a demonstrated record of successful program implementation in international education. A clearly articulated cycle of working sessions and deadlines is established to carry the team through a program design and implementation phase. Under the auspices of the Department of Education, the team receives seed money, matched by its own institution, when the implementation plan is complete. The amount of seed money has been about $1500, with an equal amount provided in consulting services, team travel costs, research and networking services.

Many of the 47 Pennsylvania colleges and universities assisted by the Institute since 1983 now receive direct federal support for their programs. The Institute's effectiveness stems in part from the fact that faculty at each institution are required to identify a need and to design an implementation process that fits the idiosyncrasies of their particular campus. Thus, while projects may vary in

sophistication and scope, all depend on the commitment and leadership of campus-based internationalists.

Kutztown University, for example, advanced its international activity on several fronts while working with the Institute. Faculty introduced a proposal to incorporate an international studies component into the graduation requirements of all arts and sciences majors. They printed a directory of faculty members with international interests and experience; produced a 60-minute television program on "International Studies at Kutztown University" that was shown throughout the region; and estblished an international studies newsletter. Meanwhile, faculty members used these campus activities to reach out to secondary school teachers in the Reading School District. Through the Berks Intermediate Unit, they initiated a regional collaborative focusing on international education.

Chestnut Hill College also began the development of an international studies program for undergraduates with the assistance of Institute consultants. An initial "consciousness-raising" lecture series on international gardens, in cooperation with a neighboring arboretum, led to a new academic option. Chestnut Hill now offers an international certificate program to accompany any major area consisting of eight courses, an internship, proof of foreign language proficiency, and a capstone seminar. As the result of subsequent funding by the Pew Memorial Trust, the project has been significantly expanded to include development of new international courses, oral proficiency skills, and faculty travel and study.

Beginning in 1985 the Institute took up the theme of economic development/international education. Its work with the Executive Advisory Board during the Institute's early years had demonstrated that closer cooperation between educators and public/private-sector internationalists was essential. Given the many efforts to internationalize the Greater Philadelphia region by the city's Department of Commerce, the Philadelphia Industrial Development Corporation, the Convention and Visitors Bureau and others, the Institute determined to promote working arrangements between these organizations and institutions of higher education.

The successful process of providing seed money, consulting services, workshops, travel funds, and research services continued.

An additional eighteen institutions in Southeast Pennsylvania received these benefits for projects relating faculty development, institutional research, and curricular design to the international realities of their immediate surroundings. A particularly successful project was supported at King's College in Wilkes Barre, where a team of area internationalists from the Delaware River Port Authority, the U.S. Department of Commerce regional office, and several private corporations joined in the design of a highly successful international business program.

Another creative program linked faculty at the Philadelphia College of Textiles with colleagues throughout the world in a project to standardize the naming of artificial fibers. A third initiative resulted in a permanent partnership between the nonprofit Philadelphia International Program and the Temple University School of Social Administration.

The Institute's work with area agencies also led to the publication of a brochure highlighting education as an international resource in the Greater Philadelphia region. Designed for overseas distribution to potential investors, the publication catalogues the remarkable flexibility and diversity of the region's 81 colleges and universities, their 300,000 students and 60,000 employees.

The Institute has available a complete list of its project directors and institutions. Knowledgeable faculty experienced in developing international internships, linkages with community-based internationalists, and cooperation among preprofessional, language, and other faculty members are available throughout Pennsylvania to share their ideas and achievements.

In the future the Institute expects to develop planning services for colleges and universities committed to institutionalizing international education. As more and more schools develop formal long-range planning processes, it is essential that adequate attention be paid to international programs. Since such activities cut across existing lines of institutional organization, they risk exclusion in departmentally-based planning exercises. The Institute proposes to develop workshops and consulting services to address these difficulties and assist development officers, planners and other senior

administrators in maximizing the long-term development of international education and foreign language study on their campuses.

The Institute also is committed to developing resources to improve the teaching of geography in the Commonwealth. This fundamental knowledge, beginning with simple name recognition and map reading in the schools and progressing to sophisticated modeling of regional economies and microclimates, forms the basic vocabulary and much of the syntax of the language of international education. Beginning in 1988, institutional development grants will be available through the Institute to all Pennsylvania colleges and Universities committed to improving the quality of geographic education.

Finally, the Institute looks forward to supporting the concept of resource centers for international education throughout Pennsylvania. The synergy created by the Ben Franklin Partnerships between the private sector and higher education in the area of technology transfer can be duplicated in the area of international education. The Commonwealth's colleges and universities are valuable resources for research, translation, training, and promotion related to reverse investment, small business export, international tourism, migration, and immigration. Only when Pennsylvania mobilizes cooperation among education, government, labor and industry will our position in the global economy advance as rapidly as our interdependence with it.

THE READING SCHOOL DISTRICT/DANFORTH WORLD STUDIES NETWORK

James E. Henderson and Janet L. Rhoads

The Reading School District sponsors an independent global education collaborative currently consisting of twenty-three school districts and six colleges and universities from an eight-county area. The collaborative brings together a network of basic and higher education professionals and community leaders who share information, teaching strategies, and expertise in planning ways to improve the teaching of international studies at the high school level.

The effort has grown rapidly since its beginning in 1985, and has been supported extensively by grants from the Danforth Foundation in St. Louis, Missouri. The initial grant of $4,000 funded several workshops, primarily for social studies teachers from five area high schools. Participants received teaching materials that included source documents, current articles, and actual lesson plans for immediate adaptation and implementation in their classrooms.

As interest in the workshops spread to other departments and districts, the Reading School District sought to expand these efforts and received a $25,000 implementation grant from the Danforth Foundation for the 1986-87 school year. The increased level of funding not only enabled the Network to serve more than double the number of participating districts and teachers, but also permitted the payment to school districts of $25 per participating teacher as partial reimbursement for the costs of substitute teachers.

Efforts to broaden disciplinary representation brought participants from English, foreign languages, home economics, and the fields of special, bilingual/bicultural, and intermediate elementary education. In addition to five workshops, the Network organized three courses: The Culture and Religions of India and Contemporary Soviet/American Relations in Historical Perspective at Kutztown University, and U.S./USSR Relations Since World War II at Albright College. The courses were typically taught for five evenings of three hours each, and awarded one local district in-service credit. Tuition and books were free for RSD/Danforth participants.

By the fall of 1987 the Network had expanded to twenty participating districts and three additional curriculum areas: art, music, and science. The Danforth Foundation responded by increasing their support to $60,000 for an eighteen-month grant cycle. These funds enabled the Network to offer its members a more extensive group of workshops and courses. It also permitted the purchase of resource books and teaching guides for workshop participants.

More important, however, the increased funds enabled the Network to bring the most respected scholars and public officials for its monthly workshops, which dealt with China, Brazil, Japan, Korea, India and South Asia, the United Nations, and nuclear arms. Speakers included the Consul–General of India; representatives from the Embassy of Brazil, the Association of Asian Studies, and the USSR Mission at the UN; and scholars from Ohio State, Georgetown, and Stanford Universities. Courses offered increased to four: two at Albright College on South America Today and China in Historical Perspective, one at Lehigh University on the Middle East, and one at Franklin and Marshall College on Foreign Policy for Teachers.

Plans are underway for a new series of workshops and courses for 1988-89. Suggestions from Network members indicate that attention should be focused on our U.S. neighbors and issues directly affecting our relationship with them such as the environment, economics and deficits, international drug trade, and foreign policy issues for the next president, the subject of the first workshop in October 1988. Workshops will be held at the Reading Public Museum and Art Gallery, which is wholly owned and operated by the Reading School District. With its extensive collection of artifacts from many countries and cultures, the museum provides an appropriate venue for Network programs. Another project is the development of a Fulbright-Hays Group Project Abroad grant proposal for the summer of 1989. If funded, the Network will send twenty professionals to study at Osmania University in Hyderabad, India, and travel to places of historical and cultural interest throughout the country. Preparation for the trip will include seminars, a symposium, and intensive language study in Hindi.

The RSD/Danforth World Studies Network is governed by an advisory board that includes faculty members from three participating colleges and universities, curriculum directors from social

studies, foreign languages and English, a local minister, district administrators, and several teachers. This group plans workshops, courses and special events, reviews participant evaluation data, and oversees program expenditures. The board is currently planning a World Studies Resource Center to be housed at the Reading Public Museum and Art Gallery.

The evaluation of workshops and courses is an important component. The Network responds to participants' suggestions for improving workshop content and procedures, and surveys member districts about the progress of their schools in implementing international education concepts into their ongoing curriculum. It also disseminates information about the Network to organizations such as World Affairs Councils, the Pennsylvania Department of Education and Council for International Education, the Middle States Social Studies Council, and the National Council for Social Studies. RSD/Danforth has been represented on the charter-drafting committee of the Alliance for Education in Global and International Studies (AEGIS), and six Network members made a presentation at the May 1988 conference of the American Forum on Education and International Competence.

Until this collaborative was formed, schools in the Reading area attempting to improve global education worked individually and in isolation. The region's colleges and universities played traditional roles and were not linked to the schools in developing programs in international studies. There was little sharing among teachers and professors, and no commitment to participate in the development of world studies curriculum offerings. During the three years of the RSD/Danforth World Studies Network, the climate for international education has changed. There now exists a commitment to combine efforts for the improvement of global education. The Network will continue to seek improvement in the teaching of international studies at the middle school, high school and college levels, and to provide professional growth and staff development experiences in international education.

AN ADVANCED INTERNATIONAL AREA STUDIES CENTER

John Frechione

Several of Pennsylvania's universities have specialized area studies programs for specific world regions. Six of these have been designated National Resource Centers for Foreign Language and Area Studies by the U.S. Department of Education: the Center for South Asian Regional Studies, the Middle East Center, and the Center for Soviet and East European Studies at the University of Pennsylvania; the Center for Latin American Studies, Center for Russian and East European Studies, and the Undergraduate Center for East Asian Studies at the University of Pittsburgh. In addition, the Joseph H. Lauder Institute of Management and International Studies at the University of Pennsylvania is a National Resource Center for International Business Studies.

There is, of course, highly accomplished international scholarship outside these centers. Nevertheless, the national policy to support a competitive program for centers and fellowships in foreign languages and area studies has helped universities amass formidable concentrations of resources. These centers play a significant role in assisting other colleges and universities, schools, and businesses with international activities. For example the PENN/PaCIE Institute (described in the preceding article), established with funding from the U.S. Department of Education, assists a large number of colleges in their efforts to internationalize curriculum.

This article describes the history and operation of one of the advanced National Resource Centers: the University of Pittsburgh's Center for Latin American Studies. All of Pitt's international programs, including the four major area studies programs (Latin American, East Asian, Russian and East European, and West European Studies) are under the umbrella of the University Center for International Studies.

History

The study of Latin America at Pitt has a history of almost twenty-five years. The Center for Latin American Studies (CLAS) was

founded in 1964 as one step toward transforming the University of Pittsburgh from a somewhat provincial institution to one that would be recognized worldwide for its international expertise.

In the early 1960s, the University of Pittsburgh had a few resources in Latin American studies upon which to build: about a dozen faculty members who could be considered Latin American specialists; twelve courses dealing with the region; the International Institute of Iberoamerican Literature and its journal, *Revista Iberoamericana*, housed in the Department of Hispanic Languages & Literatures; and a meager library collection. With money committed by the University and assistance from external funding agencies, however, Latin American studies grew rapidly.

During the next twenty years, CLAS became internationally recognized for excellence in undergraduate, graduate, and professional education. It currently has 118 associated faculty members of whom over 60, most of them in the social sciences and humanities, form the center's core teaching and research nucleus; they offer approximately 150 courses in 18 departments and schools each academic year. The other faculty members, most of whom are in the health professions, natural sciences and engineering, have broad interests and experience in the region. The University Libraries contain approximately 224,000 volumes and 6,250 periodical titles on Latin America and the Caribbean. The University of Pittsburgh Press has published over 50 books in its Latin American Series. Seven periodicals related to the region are edited or published at Pitt. In addition, CLAS maintains 73 cooperative exchange agreements with universities and research institutions worldwide.

The Center's resources and expertise are made available to people outside the University through conferences and symposia, workshops for teachers and the business community, a training program for managers from Latin America, lectures and film series, and an annual folk festival. Moreover, the Latin American Studies Association, a worldwide organization of Latin American specialists, located its headquarters at Pitt in 1986.

The Center's phenomenal growth has been the result of a number of interrelated factors. Since the objective of an area studies program is to prepare excellent area specialists, it must attract high

quality students. Such students are drawn to a program by its reputation in terms of faculty, courses, library resources, and opportunities for research and financial aid.

Funds for financial assistance and support for field research come largely from the University and external grants. Their availability is based on favorable evaluations and positive perceptions of the program held by university, government, and foundation administrators; these perceptions are based on the stature of the program's faculty, the quality of its curriculum, the extent of its library resources, and the calibre of its graduates. The University of Pittsburgh currently supports Latin American Studies with expenditures of over $1.65 million annually, which is augmented by contributions from external funding agencies.

The Workings of an Area Studies Program

CLAS complements and supplements the instructional programs of the University's departments and schools by assisting faculty and students interested in Latin America and the Caribbean and by coordinating activities on the region. It helps faculty members keep abreast of important issues in the region, thereby improving the quality of their teaching and research. The Center's international reputation enhances the University's prestige. Many of the more than 300 students who have received diplomas from CLAS have made major contributions to the academic, government, and private sectors of the nation and beyond.

Pitt's Latin American studies programs operate on the premise that students should obtain a sound background in an academic discipline or professional program and supplement that work with language proficiency and multidisciplinary competence on the region. For this reason, CLAS offers graduate and undergraduate certificates plus an undergraduate related concentration (minor) in Latin American studies, in conjunction with an academic or professional degree in the student's major field.

The three basic multidisciplinary programs in Latin American studies are the Undergraduate Related Concentration (minor), the Undergraduate Certificate, and the Graduate Certificate. Candidates

in these programs may major in any school or department of the University. This approach provides recipients with dual expertise: the bachelor, masters, or doctorate in a discipline or profession, plus a diploma certifying language and area specialization on Latin America.

The diploma requirements of the three programs differ slightly, but all include four to six Latin American area studies courses, distributed among the student's major field and at least two other disciplines, and proficiency in a language of the area equivalent to two-to-three years of college-level study. In addition, the Undergraduate Certificate requires completion of an interdisciplinary seminar-field research combination, and the Graduate Certificate requires a research paper on Latin America that reflects competence in at least two disciplines.

In most cases, completion of a Latin American program need not lengthen the amount of time required to obtain a degree. Optional courses in a student's major and electives can be used to complete the requirements for Latin American area specialization. Students are guided through these programs by the assistant director of the Center and by their departmental advisers, who are usually CLAS faculty associates.

The Center neither hires nor manages faculty members. Its "faculty" is composed of individuals who already have appointments or are hired in departments and schools of the Univeristy. CLAS does, however, attempt to encourage the appointment of faculty members who are Latin American specialists, particularly in fields with a particular need for such expertise. University faculty members who focus their teaching and research on the Latin American/Caribbean region are invited to become faculty associates of the Center. Their contributions to the program are the courses they teach, their advising of the Center's students, the recognition they bring to the University through their research and publications, and their participation in the activities of CLAS. In turn they receive Center support for research, course development, translations, and travel to professional meetings, as well as a highly stimulating intellectual and cultural environment centered upon Latin America and the Caribbean.

Latin American areas studies courses are taught by these faculty members through their departments and schools. Each term the Center compiles and distributes a list of such courses being offered throughout the University. Also included are foreign language courses that enable students to fulfill language proficiency requirements of Latin American studies diplomas. Spanish and Portuguese courses are taught by the Department of Hispanic Languages and Literatures; Amerindian languages, such as Quechua, Aymara, Yucatec Maya, and Maya Quiché, are taught by the Language Acquisition Institute operated by the Department of Linguistics.

The Center offers some financial aid and research opportunities. Graduate students may receive tuition remission fellowships, academic-year or summer Foreign Language and Area Studies Fellowships, and field research grants; they may also participate in faculty and Center research and exchange projects, and travel to professional meetings. Undergraduates may be eligible for the annual field trip to Latin America, an annual fellowship for summer study in Costa Rica, or participation in the model OAS convention in Washington, DC.

Finally, CLAS provides an active program of extracurricular activities (lectures, films, workshops, exhibits, musical presentations, folk festival), which provide a less formal but nonetheless important learning experience.

EDUCATION ABROAD PROGRAMS
Michael Laubscher

Although Penn State is land-locked in the geographical center of Pennsylvania, its Office of Education Abroad Programs (OEAP) reaches out to many continents. What started modestly twenty-six years ago with three study abroad programs in Europe has grown into more than twenty-five programs around the globe. Penn State students can now earn credit toward degrees while enrolled in officially sponsored University programs in Australia, Egypt, England, France, Germany, Greece, Israel, Italy, Japan, Kenya, Peru, Puerto Rico, Spain, USSR, or Taiwan. These programs cover a variety of academic disciplines, including eleven different foreign languages (French, German, Spanish, Italian, Greek, Hebrew, Arabic, Russian, Chinese, Japanese, and Swahili).

Penn State's programs seek to prepare students for citizenship in an increasingly interdependent global community. They provide an international component to the University's curriculum by promoting a sensitivity to and appreciation of the world's diverse cultures. The goals of Education Abroad Programs are to enrich the University's general education by coordinating its offerings with academic departments and by complementing those professional and specialized programs where a study abroad experience is especially desirable.

Penn State's Education Abroad Programs date from 1962 when the College of Liberal Arts established programs at the Universities of Cologne and Strasbourg, followed in 1963 by a program at the University of Salamanca. Originally conceived as general studies programs with courses in the humanities and social sciences, the formats of the original programs have periodically changed to adapt to evolving academic needs. While the Salamanca program retains much of its original focus on advanced Spanish language and civilization/culture, the Cologne program now focuses on language and business administration, and the Strasbourg program is currently a year-long course of study, fully integrated into the Institut International d'Etudes Françaises of the University of Strasbourg.

Over the years, OEAP has expanded both the number and the variety of its offerings. They include fully integrated programs,

in which Penn State students take an array of courses with students from the host institution, and prepackaged programs, in which Penn Staters study prescribed courses in separate classrooms. Several are specially designed preprofessional programs, providing unusual extensions of on-campus training. For example, students going to Bishop Otter College of the West Sussex Institute of Higher Education in Chichester spend a semester student teaching in the nursery, kindergarten, and primary levels. Manchester's Mass Communication program provides internships with the British communication media. Civil and architectural engineers can study at the University of Leeds, while architecture students can pursue independent research projects in one of three European cities. Business majors have a choice of programs in Lima, Nice, or Cologne, depending on their interests and language backgrounds.

The two intensive language programs, in Flensburg, West Germany, and San Germán, Puerto Rico, are open to sophomores with little or no previous college language training, unlike the other Penn State programs, which are generally better suited to junior or senior-level undergraduates. While providing an intensive language experience, these two programs allow students to enroll in specially-designed culture courses as well. Most of the Penn State programs provide field trips to enhance the overall study abroad experience.

The Office of Education Abroad Programs draws on many resources. Housed in the University Office of International Programs (UOIP), it shares physical space and cooperative spirit with the Office of International Students, the unit charged with caring for Penn State's more than 2,000 international students, and with the University's Office of International Cooperative Programs, which is responsible for administering institutional-level agreements with some fifty-five universities around the world. In addition to these resources, the OEAP draws upon its exchange students and returning study abroad participants to help internationalize the Penn State community. Nine of Penn State's programs include an exchange of students, bringing those from the institution abroad to Penn State.

Penn State's academic-year and semester-long fall and spring programs are open only to regularly enrolled Penn State students. How-

ever, in cooperation with the Continuing Education Conference Center, OEAP also offers a number of short-term summer programs that can enroll non-Penn State students as well. In the summer of 1988, for example, six summer programs are scheduled: an art and language program in Todi, Italy; an archaeological dig in Sardinia; a theater/literature program in London; an economics course at Westminster College in the city of Oxford; a comparative education program in Durham and several other British cities; and a culture and language course in Monterrey, Mexico.

Students wishing to participate in a Penn State semester or academic-year program apply a year in advance, enabling them to complete on-campus course prerequisites and to take part in the required eight hours of predeparture orientation. Applicants for any of the programs must have an overall grade-point average of at least 2.50 (on a 4.0 scale), must be in good standing, and must show evidence of maturity, stability, self-discipline, and strong academic motivation.

Penn State students pay the same tuition abroad as they would at the home campus. Room and board, when provided as an integral part of a program's arrangements, is usually comparable in cost to rates at the main campus. Each student pays a program fee as part of the application process. Living arrangements vary from one location to another; accommodations may be in university residence halls, *pensioni*, homes, private apartments, or student hostels.

OEAP has sent more than 6,000 Penn State students overseas since 1962. To accomplish this, the five-person administrative staff is assisted by on-site coordinators at each location. OEAP keeps in close contact with this network of advisers and periodically sends someone from Penn State to visit each location. The office is also supported by a faculty Education Abroad Advisory Committee, which advises on matters of general policy affecting the operation of education abroad programs and participates in the review and evaluation of ongoing and new programs. With active support from the academic units and the University faculty, OEAP continues to prepare an ever-growing number of Penn State students for world citizenship.

INTERNATIONAL INITIATIVES AT MILLERSVILLE UNIVERSITY

Marlene S. Arnold

Millersville University offers a wide range of international opportunities to students and faculty members. Its Office of International Affairs coordinates an international studies curriculum, study abroad programs, special services for foreign students, faculty exchange programs, visits by foreign scholars, and international activities for the community.

The international studies curriculum includes courses on comparative studies, economic interdependence, global environmental issues, and international relations. Area studies concentrations are offered for Latin America and East Asia. Students may take courses in nearly any area of the world. They may enroll in a foreign university for language study or participate in programs offering courses in English along with foreign language study. In addition, the Office of International Affairs facilitates internships and independent study abroad.

Millersville University operates its own study abroad programs in England, Germany, Japan, and Taiwan. At Humberside College in Hull, England, and Philipps-Universität in Marburg, Germany, Millersville students attend regular classes. For study at Aichi University of Education in Nagoya, Japan, or one of the nine Taiwan Teachers' Colleges with which Millersville is affiliated, special arrangements are made for courses to be taught in English and for language study.

Foreign students and visiting scholars make valuable contributions to Millersville's learning environment. U.S. and foreign students in the International Relations Club travel to major U.S. cities and sponsor international events. Foreign scholars give lectures on campus and in the community and engage in informal discussions with students and faculty. Their introduction of new ideas and alternative perspectives contribute to an understanding of global complexity and help sensitize the campus community to cross-cultural differences.

While Millersville University welcomes scholars from anywhere in the world, they are particularly eager to host Latin American and East Asian scholars in connection with their area studies concentrations. Millersville has a formal faculty exchange agreement with the Northeast University of Technology in Shenyang, People's Republic of China, which provides for each institution to fully support up to two visiting faculty members at a time. Millersville faculty returning from abroad present their experiences in the International Colloquium Series.

Millersville University's international initiatives attempt to create a stimulating and challenging environment and to broaden understanding of other cultures and world events on the part of its students, faculty, and community. Our region, state, and nation need individuals who can function effectively in an international environment, both for our economic and political success. Millersville University seeks to be a leader in Pennsylvania in providing international expertise and experiences to students who will shape our community and nation in the 21st century.

LINCOLN UNIVERSITY'S INTERNATIONAL DIMENSION

Niara Sudarkasa

Lincoln University may well have been the first institution of higher learning in Pennsylvania to be founded with an explicitly international dimension to its mission. Chartered as Ashmun Institute in 1854, the university was originally named after the first white American Administrator for Liberia, the settlement on the west coast of Africa to which colonies of Afro-American freedmen and former slaves had emigrated before the Civil War. The founder, John Miller Dickey of Oxford, Pennsylvania, who was a staunch Presbyterian supporter of the American Colonization Society, started the new all-male college as a training ground for Black missionaries who could serve in Africa.

One of the first three men to graduate from Ashmun Institute in 1859 was an Americo-Liberian; all three graduates went to Liberia to serve as missionaries. In 1873 the first contingent of indigenous Liberian youth enrolled at Lincoln University, which had been renamed in honor of the slain emancipator shortly after his assassination. In succeeding decades, many Africans from the western, eastern, and southern parts of the continent came to America to study at Lincoln University.

For 134 years Lincoln's international enrollment has been a source of pride and a mark of distinction for the institution. Lincoln has graduated students from scores of foreign countries located on every continent, but it is best known for having trained many of the West Africans who led the movement for independence in the first half of the 20th century. Lincoln's most famous African graduates matriculated in the period between 1929 and 1945. Foremost among them are Nnamdi Azikiwe, who became the first president of Nigeria, and the late Kwame Nkrumah, who led Ghana to independence as its first prime minister and then its first president. Another Lincoln alumnus, Edward Wilmot Blyden III, grandson and namesake of the famous 19th-century African scholar, went on to become an internationally known educator and ambassador from his home country of Sierre Leone.

Less familiar to the general public are scores of other Lincoln graduates whose names are household words throughout Africa in government, education, theology, journalism, law, medicine, dentistry, banking, business, and other fields. Although many of these Lincoln alumni are in their later years, the steady though somewhat diminished stream of graduates from the African continent during the sixties, seventies, and eighties has kept alive the legacy of Lincoln's important Africa connection.

Today Lincoln is beginning to rebuild and expand its educational ties with Africa. We see our network of loyal and influential alumni as one that can open doors for us as well as for the Commonwealth as it seeks to strengthen its linkages with Africa through trade, development projects, and other mutually beneficial undertakings.

Just as Lincoln's international focus led it to play a major role in educating Africans for service to their homelands, so too did it instill in generations of Afro-Americans a concern and readiness for service abroad. Lincoln's traditional links with Africa and its unswerving commitment to a classical arts and sciences curriculum made it inevitable that its graduates were among the first Blacks to be recruited for diplomatic service. Moses A. Hopkins and Samuel S. Sevier, the first diplomatic chiefs of mission from the United States to the Republic of Liberia, were Lincoln graduates of the class of 1874 and 1882. Solomon Porter Hood, of the class of 1873, served as minister to Liberia in the 1920s. R. O'Hara Lanier, of the class of 1922, became America's first Ambassador to Liberia when a full-fledged embassy was established there in 1948.

A number of more recent Lincoln graduates have also been ambassadors. For example, Franklin H. Williams, 1941, served with the U.S. delegation to the United Nations and as Ambassador to Ghana in the early sixties. Charles J. Nelson, 1942, served as Ambassador to Botswana, Lesotho and Swaziland; W. Beverly Carter, 1943, was Ambassador to Tanzania and to Liberia; and Horace G. Dawson, 1949, served as Ambassador to Botswana. Three of Lincoln's graduates who made the greatest contributions in the international field were men who made their mark in science, education, and public service. Dr. Hildrus A. Poindexter, 1924, who earned his M.D. from Harvard and Ph.D. from Columbia, became one of the world's leading parasitologists and authorities on tropical diseases. He headed

public health missions for the United States in Liberia and in Indo-China before settling into an academic career at Howard University.

Dr. Horace Mann Bond, 1923, Lincoln's first Black president, established an Institute of African Studies at the University in 1950, years before such institutes and centers began to spring up at other American universities. An African Studies Center had been established at Northwestern University two years earlier, but Lincoln's Institute was unique in building on its long-standing ties with the new African leadership that had begun to take over the reins of power from the old colonial governments. In addition to offering a full array of courses on Africa during the academic year, the Institute offered summer workshops for teachers who wanted to better understand Africa's history and cultures, and the challenges it faced in the transition from colonial rule to independence.

Under Dr. Bond's leadership, international studies flourished at Lincoln and many luminaries visited the campus. For example, in 1951 when the University awarded an honorary degree to Kwame Nkrumah, the ceremony was attended by Nobel Peace Prize winner Dr. Ralph Bunche, Trygve Lie, then Secretary General of the United Nations, and Sir John Carr-Gregg of the British Information Service. The legacy of Dr. Bond's leadership in the international field made it possible for Lincoln to become a major center for the training of Peace Corps volunteers in the early sixties and the site of various orientation programs for African students who were brought to the United States in record numbers in the post-Independence era.

Given Lincoln's long and continuous involvement with Africa, it is not surprising that a Lincoln man, the Reverend James H. Robinson, 1935, was the founder and director of Crossroads Africa, a volunteer service organization that first recruited young people to work in Africa in the late fifties and early sixties. Crossroads Africa was the model for John F. Kennedy's Peace Corps.

The Lincoln alumni mentioned here, and hundreds of others who made their mark in international careers, were educated in a tradition that we are now seeking to revive as we fashion Lincoln's educational mission for the 21st century. We envision that what is being discussed and planned under the rubric of "internationalizing the curriculum" will have to become standard fare in higher education.

We expect Lincoln to play a major role within the Commonwealth and the nation in diversifying linkages to educational institutions in the Third World, but particularly to those in Africa.

Although we fully expect to have international perspectives reflected throughout our curriculum, we are also seeking support for the establishment of an International Affairs Institute that would be the umbrella organization for Lincoln's special international programs. This Institute would incorporate three research and teaching centers: the Center for the Study of Public Policy and Diplomacy, the Center for the Comparative Study of the Humanities, and the Center for the Study of Critical Languages. What is unusual is that these centers are expected to operate in the context of a predominantly undergraduate institution. They will provide unique opportunities for our students to work with established scholars on special research projects, while at the same time affording both visiting and regular faculty members first-rate facilities within which to study and write.

Lincoln's Center for the Comparative Study of the Humanities would expose students to African and Asian, as well as European and American, contributions to the humanities. It would emphasize that the very concept of the humanities implies a cross-cultural, multiethnic approach to the study of art, aesthetics, philosophy, religion, music, etc. Our aim would be to spearhead research and teaching on the *humanities*, not just EuroAmericanities, which is what is offered in many colleges and universities today.

Drawing on its historic strength in international studies, Lincoln's Center for the Study of Public Policy and Diplomacy would create a major undergraduate program to prepare students for graduate studies in these areas as well as for jobs for which they could compete immediately after graduation. Lincoln would also conduct summer programs to help prepare students from other small, predominantly undergraduate institutions for careers in public and international affairs.

Lincoln is unique among historically Black colleges, and generally among institutions of its size in offering an honors program in Russian and Chinese, and in teaching Japanese as well as German, Spanish and French. Our language majors typically participate in a

study abroad program that provides them with a total immersion experience among native speakers of the language they are studying.

That Lincoln's language program is successful is illustrated by the fact that in national competitions, Lincoln students have won an average of one American Association of State Colleges and Universities (AASCU) scholarship per year for the study of Chinese in Taiwan. In 1985-86 Lincoln students won two of the eight AASCU scholarships awarded. In addition, the Taiwanese government has awarded eight scholarships directly to Lincoln students since 1983. In recent years too, five of our students have had a total immersion experience in Russia. Two of these were students who had also studied Chinese in Taiwan.

The success of these programs, along with the growing need for strengthening our offerings in German, French and Spanish, underlie our decision to establish a Center for the Study of Critical Languages. Once again Lincoln intends to take the lead among small colleges and universities in preparing students for careers in the increasingly international work world that will confront them in the coming decades.

Ever mindful of the growing minority student population in the Commonwealth and in the nation generally, Lincoln intends to focus its efforts in the international area on the training of Blacks, Hispanics, and other minority students. From populations with historical links to the Third World, these students often have strong interests in international studies but have traditionally been seriously underrepresented in these areas. With the programs we now offer and those on the drawing board, we expect to play a major role in addressing this situation. In so doing, we will help to prepare "one-third of the nation" for a more productive role in tomorrow's world.

LOCK HAVEN UNIVERSITY'S INTERNATIONAL PROGRAMS

C. Craig Willis and John W. Johnson

Lock Haven University's international program is a comprehensive effort to internationalize the campus. For every student we send abroad, we strive to bring a student from one or more of our partner institutions. These exchange students are integrated into the student body and linked academically and socially with the American and foreign students already on campus. We also attempt to create as much interaction as possible between the international program and the residents of Clinton County and the north-central Pennsylvania region.

The exchange program began in 1970 when Lock Haven and Clifton College of Education (renamed Trent Polytechnic), Nottingham, England, organized one of the first "bed-for-bed" student exchanges between an American and European college. A few years later agreement was reached between Lock Haven and University Maria Curie Sklodowska, Lublin, Poland, for an annual exchange of students and faculty. Today the Lock Haven network of exchange partner universities includes four in China, two in England and two in Taiwan, as well as Scotland, Germany, Poland, Yugoslavia, Japan, Mexico, and Australia. Additional exchanges with Canada, the USSR, Puerto Rico, and Ireland are under consideration.

In 1974 Lock Haven University began a program of overseas student teaching. This effort has enabled hundreds of prospective Pennsylvania teachers to live, study, and teach in a different cultural setting, and to return to Pennsylvania classrooms with first-hand knowledge of other people, systems and institutions. Almost 500 students have acquired teaching experience at sites in Europe, Latin America and Australia since the program's inception. An Asian component is likely to be added in the next year. It is probably safe to say that few, if any, programs have done more to internationalize K through 12 teaching in Pennsylvania.

Lock Haven's international program represents a sound academic achievement. Although students can participate regardless of major, the selection process is rigorous and competition is stiff. All exchange and overseas student teaching candidates must have a minimum

2.5 cumulative average, submit at least three recommendations, and undergo a personal interview before being admitted to an international program. The students Lock Haven receives from its overseas partners are also academically and socially adept, having obviously been selected with care. Both sides are well aware of the standards and traditions that exist and strenuously strive to uphold them. Every effort is made to have a Lock Haven representative visit each exchange site while the program is in progress, and partner representatives visit Lock Haven annually to review the progress of their students.

Exchange faculty members make an important contribution to Lock Haven by offering classes, particularly those dealing with language and culture, that the University would otherwise be financially hard pressed to support. One semester, for instance, Mandarin Chinese language and culture was introduced. The response was much greater than anticipated, and has led to the offering of Japanese language and culture. Another example, of special interest to the sizeable Italian-American population of Lock Haven, is an evening continuing-education class in Italian taught by an exchange professor. In addition, four Polish instructors are spending an extra week in Lock Haven to teach the history, societal, political, cultural, and economic development of 19th and 20th-century Poland to forty to fifty participants in Lock Haven's Elderhostel Program.

A new initiative is the establishment of Development/Enrichment Summer Seminars for basic and higher education faculty and administrators. The objective is to provide intensive low-cost exposure to other cultures, people, and systems for Pennsylvania educators. These three-to-five-week seminars are being established in China, Taiwan, Yugoslavia, and Poland; estimated costs are from $1,100 to $1,800 including room, board, and round-trip airfare.

Lock Haven University's international efforts, however, extend beyond education. For example, Lock Haven is attempting to bring Chinese business and trade associations together with Central Pennsylvania businesses, banks, government agencies, and officials to explore opportunities for economic development and joint enterprise relationships. Further, the University serves as an international mecca for residents of north-central Pennsylvania by providing a continuous stream of diverse cultural events.

INTERNATIONAL STUDENTS AS A RESOURCE FOR CAMPUS AND COMMUNITY PROGRAMS

John Tachovsky

The interrelatedness of our modern world demands that we provide our students and community with the opportunity to learn about the ideas, practices, and teachings of other peoples and cultures. Such knowledge also helps us understand the evolution of our own American culture within the world community.

Recognition of the need for a global perspective has led to West Chester University's commitment to a broad-based program of international education. A necessary component has been the establishment of a critical mass of international students, whose rich and varied backgrounds enhance our educational and cultural resources. Naturally, the academic and social development of the international students themselves is an integral aspect of our global mission.

Much attention has been given to attracting and maintaining this cadre of students. The International Students' Association (ISA), established to meet the needs of international students, organizes educational and cultural activities that promote international awareness and appreciation. It also facilitates international student participation in academic programs and community events, and helps with living arrangements and financial aid. The University provides year-round housing for international students as well as support services to ease transition into the new environment.

The response of both international and American students has been favorable. In addition to their unique languages, cultures, and personalities, international students bring to the University a love for learning and zest for life that are at once refreshing and challenging; they bring strong academic abilities as well. American students and faculty have responded with warmth and kindness by acting as hosts, tutors, mentors, and friends. At the same time, our international students have made a real contribution to the initiation of a global community on campus. They are eager to help us learn more about their cultures, traditions, and political systems.

International students are also enthusiastic advocates for West Chester University here and abroad, encouraging students in their

home countries to apply to West Chester and participating in activities that bring acclaim to the University. For example, they assist in language and cultural programming efforts in elementary and secondary schools of Chester County, or participate in community receptions and open houses designed to increase awareness and knowledge of other cultures.

Similarly, international students help promote cross-cultural understanding through campus talent shows, artistic performances, and food festivals. They also play an important role in the University's Critical Language Program. By tutoring and teaching, they enable West Chester to provide instruction in some of the world's most difficult nontraditional languages as an ongoing part of the Foreign Languages Program. Participation in these varied activities has broadened the intellectual horizons of American students and helped erode some of the attitudinal barriers that divide people.

West Chester University's vision of an internationalized campus and community has been dramatically realized in the past few years. Our international student population has grown to almost 250 students from fifty nations. These students have contributed their talents and energy to the development of a new sense of global awareness. Through their willingness to share experiences and customs with their American counterparts, they have created a heightened appreciation of the richness and value of cultural diversity. We have been privileged to contribute to their education; we appreciate the even greater contribution they have made to ours.

ENGINEERING EDUCATION: THE INTERNATIONAL IMPERATIVE

Donald M. Bolle

Although the United States had exhibited little preoccupation with international affairs for the first forty years of this century, the onset of hostilities in Western Europe towards the end of the fourth decade brought a rapid end to the luxury of isolationism. Success in the ensuing global conflict depended critically on the industrial might of the United States to supply war materials, foodstuff, medical supplies, and the host of other needs to sustain both the war effort and the nations under seige.

The United States emerged from that conflict with its agricultural and industrial might at unprecedented productivity levels, but most other nations found their agricultural capacity insufficient to feed their populations and their manufacturing capabilities either destroyed, outdated, or subverted almost entirely to war purposes. The worldwide appetite was so great that marginal quality was readily accepted. The U.S. economy flourished, and the balance of trade was favorable. At the same time, educational opportunities for returning veterans and subsequent baby boomers expanded on an unprecedented scale. The quality of education from kindergarten to graduate school improved. But a return to insularity also ensued. The United States as a concept was embraced, but as an effective political instrument was rejected. The Korean War did little to further the idea of global unity.

It was not until we entered the late sixties and early seventies that the fabric of our nation was tested. The Vietnam War had substantial social impact that affected our educational institutions. Furthermore, changes in the supply and worldwide distribution of oil shocked our economic and social system. The idea of the United States as an interdependent nation rather than an independent one began to creep into our minds and pocket books. At the same time, the once all-powerful American enterprise system was being effectively challenged on many fronts.

As we entered the 1980s, very disquieting indications that all was not well began to appear, and the balance of trade began to shift. Our goods were no longer in as great demand as they had been

even a few years earlier. Our huge balance of trade in agriculture melted away as the green revolution began to increase crop yields dramatically across the world. The educational system was seen as failing us, as our high school graduates were no longer the better or equal of their peers in other developed nations. Where once the United States had dominated, the research and development associated with new processes and products were increasingly originating in laboratories abroad.

Deterioration of our competitive position in the international market place has occurred so rapidly that we have very little time for corrective action. The factors affecting our ability to compete are many and complex: labor and tax policies, bilateral trade agreements, environmental impact regulations, management styles, and the incentive and reward systems. But surely, the nation that neglects to adequately prepare its young people for meeting the challenges of tomorrow will not long survive with a decent standard of living, nor will it long continue to influence international affairs. Fortunately, earlier isolationist sentiments seem silent now, and the fact that we live, work, and must compete in one world is recognized.

To ensure an expanding economy and continued growth in our standard of living, we must make sure that our educational system strives to attain the necessary level of quality. Further, we must make sure that our talented young people with an interest in engineering, the sciences, and technologies have access to the best educational programs offered anywhere. Higher education in the United States is still perceived, and rightly so, as among the finest in the world, attracting students from the best educational institutions on all continents for graduate and postdoctoral work. There is, however, disquieting evidence that this is being taken for granted. Investment by our government, at both the state and federal levels, is now such that serious erosion of our competence in this area is noticeable. We are living on borrowed time.

Important as technical education is for the flow of able people into our industrial organizations, it is but one facet. Today, middle market and small companies, as well as large corporations and conglomerates, compete internationally. This places demands on the professional, whether in marketing, sales, research and development, or any of the other myriad activities of the modern corporation; all

must be able to operate comfortably within the international market place.

Engineering educators have long sought to provide, in addition to the critical technical content, curricula that allow students to develop their communication skills, their sense of history, an understanding of Western society and of their fellow man. To this we must now add an awareness of foreign cultures. Today's educated person must be reasonably comfortable being in contact with individuals from Western and Eastern Europe, South America or the Near East, and most certainly from the Pacific Rim nations.

What we must do is clear; what is not nearly so clear is how best to do it. It is already evident that we must sacrifice to some extent the introduction of particular technologies at the undergraduate level. We must delay this material to the master's programs so that students have time for international studies. Will it be long before engineering students are expected to achieve reasonable mastery of at least one foreign language before graduating? In any case, exposure to foreign cultures will be required. Few will rise to leadership positions in industry or elsewhere who have not lived abroad or worked in an international setting.

We must prepare our students accordingly. At Lehigh University, we have recognized for several years that we must meet the challenge of preparing our students for this new work environment. To that end, the University established a task force, involving faculty, administrators and trustees, which addressed the issue of international competitiveness and its potential impact on higher education. A conference on International Competitiveness was held at Lehigh in the spring of 1987, at which working sessions were organized with keynote speakers from industry, government, and universities addressing business, technological, and societal issues. Published conference proceedings are available through Lehigh University.

Two concurrent activities were an internal audit to identify courses with international studies content and formal recognition of the Center for International Studies, which was given the responsibility for fostering scholarship and promoting coordination of campus-wide efforts to internationalize curricula and research. In addition, the provost established a Task Force on the International

Dimensions of Academic Programs under the chairmanship of the Center director.

The task force is exploring several avenues to expand or enhance students' opportunities to engage in international studies, whether on campus or through study abroad. A subcommittee is to propose changes in curricular and degree requirements. We intend to act definitively on their proposals. Lehigh University is firmly persuaded that aggressive action is warranted. Our responsibility to our students makes it mandatory that we ensure their exposure to the fundamentals that govern peoples and societies elsewhere.

INSTITUTIONAL CAPABILITY, COMMITMENT AND RELEVANT EXPERIENCE: INTERNATIONAL AGRICULTURAL DEVELOPMENT

J. Dean Jansma

The Pennsylvania State University has a long tradition of support for international development activities, including linkages dating from 1907. In 1986, the Board of Trustees reaffirmed the importance of the University's international dimension, unanimously committing Penn State to a "vigorous program of international activities."

This commitment is demonstrated by the University's current involvement in more than fifty international linkages, including agreements with institutions in ten African nations. The University Office of International Programs (UOIP) coordinates international activities among various academic units. Its Office of International Students serves the special needs of the international students on campus, who come from 120 nations and represent nearly 30 percent of all full-time students seeking advanced degrees.

A large public university, Penn State has over 60,000 students and more than 3,000 full-time faculty members. The Colleges of Agriculture and Engineering are its two largest academic divisions, with more than 350 faculty members each. About 50 percent of those in agriculture have worked on professional assignments in eighty nations. The College of Agriculture's academic divisions include departments of Agricultural Economics and Rural Sociology, Agricultural and Extension Education, Agricultural Engineering, Agronomy, Dairy and Animal Science, Entomology, Food Science, Horticulture, Plant Pathology, Poultry Science, Veterinary Science, and a School of Forest Resources. Doctoral programs are offered in twelve areas and master's level programs in sixteen specialization areas in agriculture; graduate study in eight additional areas is offered on an intercollege basis.

The breadth and depth of Penn State's resources and its commitment to international activities make the University an active participant in the design, implementation and evaluation of international agricultural programs. A number of these are highlighted below.

Swaziland Cropping Systems Research and Extension Training Project (1982-1988)

The Swaziland farming systems project was designed to help the Swazis reach their objectives of national food security, increasing income to smallholder farm families, decreasing rural-to-urban migration, and increasing employment opportunities in rural areas. It was developed through a collaborative approach by officials from the Ministry of Agriculture and Cooperatives, the USAID/Swaziland Mission, and representatives from Penn State and Tennessee State Universities.

Major activities in the Swaziland project are to provide: (1) graduate degree training in agriculture for twenty participants to help develop a core cadre of Swazi agricultural research and extension officers; (2) opportunities for Swazis to attend short courses and study tours; (3) long-term technical assistance in research, information dissemination, and extension activity; and (4) short-term technical assistance in areas of specific need. Swazi participants have been enrolled in a number of prominent U.S. universities.

The first phase of this institution-building project has emphasized applied research on agronomic (maize and beans) and horticulture crops, development of an information section in the Ministry of Agriculture and Cooperatives, support of the training and visitation system of extension, and assistance in management provided by a socioeconomist, a production economist, and an economic policy adviser.

Zimbabwe Technical Assistance to the Agricultural Sector/University of Zimbabwe Faculty of Agriculture Development Project (1984-1989)

This is a faculty-development project being implemented by Michigan State and Penn State Universities. Its objectives are to: (1) supplement faculty rosters while junior faculty members are taking graduate studies in the United States; (2) provide teaching faculty

for new and expanding courses resulting from the rapid increase in the number of students enrolled in agriculture; and (3) assist in supervising research programs of students working on M.Phil. and D.Phil. degrees at the University of Zimbabwe.

Two important aspects of this project demonstrate Penn State's willingness to provide technical assistance within the host country's institutional framework. First, all faculty members furnished under the project assume duties of regular faculty members at the University and are responsible to the department head in the Faculty of Agriculture rather than to a chief-of-party. Second, graduate training in the United States is limited to enrollment in graduate course work; all research is done in Zimbabwe (typically in association with a faculty member from one of the contractor universities). The student's degree is awarded by the University of Zimbabwe—not the U.S. institution attended.

Sri Lanka Agricultural Education Development Project (1979-1986)

The major emphasis in this AID-financed project was to expand Sri Lanka's institutional capacity to provide undergraduate and graduate education in agriculture at the University of Peradeniya. Penn State, Virginia Polytechnic Institute, and Texas A&M University were subcontractors for the Academy for Educational Development. Thirteen Sri Lankan participants earned Ph.D. degrees at Penn State in Plant and Soil Agronomy, Horticulture, Plant Pathology, Rural Sociology, Agriculture Extension, Food Science, and Forestry.

The designers of these Ph.D. programs worked with Sri Lankans to insure that the training was relevant to conditions there. This was accomplished by having each participant complete the graduate course work at Penn State but return to Sri Lanka for dissertation research. The participant's major professor went to Sri Lanka (typically for one month) to assist in finalizing the research design and to help initiate the field research. Upon completion of the research, the participant returned to Penn State for final writing and defense of the dissertation.

Venezuela Agricultural Education Program (1978-1980)

Originally set up as a five-year contract with the Government of Venezuela, this program's objective was to train host-country agricultural instructors and coordinators for the Venezuelan National Institute of Cooperative Education (INCE). Penn State faculty members worked with INCE personnel in Venezuela, emphasizing applied teaching methods in crop and livestock production, horticulture, and farm mechanics. The project also involved planning for an agricultural education department in a major Venezuelan university. Toward this end, approximately forty INCE instructors studied technical agriculture in the United States for periods ranging from three weeks to several months during the first two years of the project. The last three years were canceled as a result of a change of government in Venezuela.

Uruguay Agricultural Production and Marketing Project (1972-1976)

Penn State was prime contractor for this AID-sponsored project designed to improve the marketing of fruits and vegetables in Uruguay; Michigan State and Texas A&M Universities were subcontractors. Agricultural economists from the three universities assisted the Uruguayan Ministry of Agriculture with development planning and administration. Long-term personnel worked in agricultural economics, pomology, vegetable production, plant pathology, and agricultural information. Short-term personnel assisted in citrus production, entomology, agricultural information, potato production, agricultural economics, and plant pathology.

Bahamas Agricultural Research, Training and Development Project (1973-1979)

Penn State University, in association with the Western Institute for Science and Technology (WIST), the Bahamian Ministry of Agriculture, and USAID, developed and implemented a sixty-six-month program of applied research, training and development on Andros Island. The project included clearing and preparing a 500-acre pine forest as a site for research plots. Research was

conducted into drip irrigation of fruit and vegetable crops, variety selection of field crops, grazing trails, land-clearing methods, and animal production. Cost and marketing studies (including development of cooperatives) were also undertaken. Sixteen farms established in various parts of the island served as prototypes for continued development. In addition, the program provided training at Penn State and elsewhere in the United States for twenty-two staff members of the Bahamian Ministry of Agriculture.

Agricultural University Development Project in Maharashtra, India (1968–1973)

Penn State developed and implemented a project designed to help develop an agricultural university in the state of Maharashtra under a five-year USAID contract. The objectives were to: (1) assist the university in developing policies, plans, and programs; (2) advise on the university's organization, administration, and operation; (3) develop teaching, research and extension programs; and (4) help plan for needed equipment and physical facilities.

A centrally-located site was selected and buildings constructed; plans were also developed for an 8,000-acre experimental station and farm. Penn State faculty members and their Indian colleagues intensively reviewed existing research, developed an up-to-date curriculum for each discipline, and established priorities for additional research. In addition, thirty Indian faculty members received graduate training at Penn State and other U.S. universities under the auspices of the project.

Agricultural Production in Maharashtra, India (1968-1973)

Under a separate but related project, Penn State provided four full-time staff members to the Ministry of Agriculture in the state of Maharashtra. The objective of this project was to identify constraints on increased production of rice, sorghum, millet and wheat, and to find feasible solutions for overcoming them. Long-term technical assistance was provided in agricultural engineering, plant protection, soil and water management, and crop improvement.

PHILADELPHIA EXPORT NETWORK: PEOPLE, RESOURCES, RESULTS

Hans H.B. Koehler

For Pennsylvania businesses, particularly small and mid-sized firms, the evolution of the domestic marketplace into one that today is global in scope poses new problems and opportunities. While large, multifaceted companies have developed a "global capacity," small and medium-sized firms have been slow to pursue a greater share of the world's markets through exporting their products, technologies, and services.

There are an estimated 2,000 small firms in the greater Philadelphia region that have the potential to export but do not. This hesitancy may undermine their growth and long-term viability. The capability of Pennsylvania business to export also affects the viability of the state's economy. International trade has a significant impact on jobs at home. Since entrepreneurial small business is the primary generator of innovations and jobs, assisting this sector to compete profitably in foreign markets will reap extra economic rewards for the region.

To become active exporters, most firms have four requirements. First, they need market information and technical assistance to help them find the appropriate and profitable path. Second, they need step-by-step consulting support to help them through the barriers posed by the pressures of daily business and the lack of sufficiently well-trained in-house staff. Third, they need to find a niche, or product advantage, in a foreign market. Fourth, they need to locate and access resources (financial, personnel, logistic, legal, etc.) to execute export orders consistently and to develop staying power in the international marketplace. The Philadelphia Export Network (PEN) provides assistance and guidance in all four areas.

The Philadelphia Export Network is a nonprofit entity, totally dependent for its operating budget on grant funding, client fees, and minor income-producing projects such as *The Philadelphia Export Directory*. PEN was established under the "International City" concept in October 1981. It is housed at Wharton's Snider Entrepreneurial Center. PEN's mission is to assist small, mid-sized, and minority-owned firms in the greater Philadelphia area to develop

overseas markets for their products and services by drawing on the resources of the Wharton School, the United States and Pennsylvania Departments of Commerce, the City of Philadelphia and surrounding counties, the Greater Philadelphia International Network, the Philadelphia Port Corporation, the Delaware River Port Authority, leading international companies, and export trade-related organizations in the area. The overall goal is to stimulate economic development and create more jobs by activating the international trade and export potential of the region's small business sector.

PEN's working linkage with the Wharton Graduate Business School and the small business, international trade, port, and economic development communities has proven very effective. PEN staff, Wharton faculty, and the PEN Technical Advisory Committee provide frequent seminars on key issues facing regional exporters and actively participate in export-promotion activities sponsored by other government or private-sector organizations. Seminars and conferences are a valuable source of export clients.

Over 130 firms, including minority-owned enterprises, have benefited from PEN's export development program by generating an estimated $150 million annually in export sales, 3,700 jobs, and $3 million in state and local revenues. In recognition of this contribution to export development, PEN was honored by Pennsylvania's Governor in 1984.

PITTSBURGH ROUND TABLE OF INTERNATIONAL BUSINESS AND EDUCATION

Ruth S. Morris

The Pittsburgh Round Table of International Business and Education (PROBE) was organized in 1987 to create a forum for the exchange of ideas and assistance among academic, corporate, and government leaders involved with international trade. Initial meetings were held on the Indiana University of Pennsylvania (IUP) campus and at the International Vista Hotel in Pittsburgh.

The featured speaker at IUP, Mr. Seichi Motani, Executive Director of the Mitsubishi Bank Foundation from Tokyo, shared his views on ways to improve the United States-Japanese trade balance. At the Pittsburgh meeting, Nancy Austin, coauthor of the best-selling management textbook, *A Passion for Excellence: The Leadership Difference,* introduced the concept of partnerships; corporate, educational, and government leaders shared their successes in the international trade area. The meeting culminated with sessions emphasizing new business opportunities, internships, and exchange plans whereby campus expertise is made available around the world.

In addition to keeping its members informed about trade opportunities, PROBE assists through the International University Partnership Program in International Business by preparing staff for orientation sessions, providing visa assistance, and developing contacts abroad.

While PROBE sponsors meetings for the exchange of ideas, it also provides ongoing services, which include:

1. *International awareness/negotiating workshops* on campuses in over 100 countries, or by correspondence. Workshops can vary in length from one-half day to full college courses.
2. *Consultants* through contacts with international universities, visiting faculty, and U.S. faculty who have returned from an exchange teaching experience. In addition, the Association for Overseas Educators, with headquarters at IUP, provides advice and introductions abroad.

3. *Internship candidate possibilities.* Interested firms can either recruit students seeking assignments overseas or students from another culture willing to work in the United States.
4. *Communication aids.* Through telex, university linkages, electronic mail and International Trade Network, firms are assisted with contacts overseas.
5. *Academic assistance.* Foreign language training through self-instructional tapes, translation services, and retraining programs are available to partner firms. An extensive library of tapes, or help with production of tapes for training materials, is available.

AN INTERNATIONAL PERSPECTIVE FOR NORTHEASTERN PENNSYLVANIA

Russell Singer

The global economy is a reality. Business is truly international, and business executives everywhere are encouraging young people to prepare for multinational business careers. A business school graduate today without international training is as unprepared as the graduate without a basic knowledge of accounting.

The world of the 1980s is not the same as that of the 1950s. The rapid transfer of technology, the shrinking of world trade barriers, the establishment of common markets, and increased competition in traditional home markets have forced American business to respond. Companies now view the world as their market, and their international departments or divisions are leading the way along new paths of growth and investment in the international economy. The world ahead will truly be a world of increasing interdependence.

King's College has responded to the international challenge in a number of ways. First, the college designed an international business major to offer a sound contemporary education that provides an understanding and appreciation of the international business world with all of its political, economic and cultural problems. To this end students are required to take courses in international business, management, finance, marketing, sales and economics. Special topics include export financing, trade promotion, forecasting exchange rates and insurance.

A student majoring in international business must also take courses in international politics, comparative political systems, comparative economic systems and international law. The study of a foreign language with a strong cultural component is essential, and King's requires all of its international majors to study a foreign language. Since living in a foreign country is the quickest and easiest way to adapt to the ideas and beliefs of other people, students are encouraged to travel, study or intern abroad for a summer, a semester or an entire academic year. A student completing this four-year degree is well prepared to face the international market place.

King's, however, did not stop here; it took a strong and important second step. All students attending the college, regardless of major, must take as part of the core curriculum a 20th Century Global Perspectives course and complete a foreign cultures requirement.

Thirdly, all teachers at the College, but especially in the business division, are encouraged to include in their courses the textbook chapters dealing with international topics. In many schools, such chapters are frequently omitted to make time for other topics that are considered more important.

As a fourth step, the College is committed to faculty development for those teachers who wish to acquire international expertise. Retraining of the present faculty is important to the continuity of existing programs, as they attempt to complement them with international emphasis and the new international major.

Last but not least, in hiring new faculty members, King's College looks at a candidate not only for the traditional knowledge of his/her discipline but also for any international knowledge or experience he/she can bring to the college. This is an important element in planning for the future of international education at King's. New faculty members bring new ideas and seem excited to be in a school that is building international emphasis.

No program, no matter how great its academic integrity, would be complete without an outreach program for the business and educational communities in which it exists. King's serves the business community through its membership in the regional World Trade Club and its role with the Northeastern Pennsylvania Trade and Export Development Council. The College also assists in the international educational training of teachers in secondary education. Through seminars and in-service sessions, King's tries to create an international spirit of learning in our regional high schools. For future generations, the stimulation and creation of a true international educational experience must begin in the elementary grades.

King's College is thus attempting to meet an important national challenge. It believes that a liberal arts college with reasonable funding, dedicated effort and hard work can make an impact far greater than its size and far beyond its own community.

WESTERN PENNSYLVANIA DISTRICT EXPORT COUNCIL

F. J. Sarknas

The Western Pennsylvania District Export Council is one of fifty-one such councils associated with U.S. Department of Commerce district offices nationwide. Its members are volunteers, and each is appointed by the Secretary of Commerce of the United States.

The purpose of district export councils is to foster a greater awareness of the need, the means, and the incentives to export. Working closely with the Department of Commerce district office and other trade organizations, council members advise the business community on the methods of selling overseas. They also provide valuable information on trade matters under consideration by the Administration and Congress.

The fifty-three members of the Western Pennsylvania District Export Council (WPDEC) reflect the region's international business community. Western Pennsylvania's preponderance of corporate headquarters, its emphasis on research and high technology, and its established base of small manufacturers and service companies are all represented on the membership roster. Also represented are the many independent organizations and institutions that support the area's development of trade: banks, universities, chambers of commerce, manufacturers' associations, public accounting, legal, and consulting firms. Several export trading companies are represented as well. WPDEC established a subdivision in Erie, Pennsylvania, to enable council members in northwestern Pennsylvania to more readily contribute their expertise and talent, and to focus their attention on programs and activities that serve their nearby business community.

The WPDEC's nine operating committees offer members an opportunity to contribute to any of the council's multiple areas of activity in accordance with their skills, experience and available time. These committees, which became fully operational in the 1987 fiscal year, are currently organizing projects that should have a measurable beneficial effect on the successful pursuit of export opportunities by the region's businesses. Some of their activities are described below.

The Business Counseling Committee consists of individual members with expertise in a particular field of international business who augment the U.S. Department of Commerce district office staff in counseling western Pennsylvania exporters. The Legislative and Business Feedback Committee is responsible for developing a WPDEC response to requests from U.S. Department of Commerce headquarters or the President's Export Council for business reaction to specific proposals or conditions. Such feedback may relate to trade issues or pending legislation. The committee may also provide examples of instances in which western Pennsylvania firms have experienced trade barriers or other complications that are the subject of trade negotiations and other bilateral or multilateral discussions.

Two areas of focus for the Programs and Education Committee have been the organization of seminars and conferences on international business topics and the promotion of international business studies among western Pennsylvania's academic community. WPDEC actively collaborates with local universities, particularly the University of Pittsburgh's Center for International Studies, on such activities. The annual seminar series relies heavily upon the skills and experience of individual council members in establishing agendas and recruiting qualified speakers. Committee members also help area universities to develop full or partial international business curricula and may serve as course instructors.

The Foreign Commercial Service Committee reviews proposals from firms interested in the services of a Foreign Commercial Service Officer for a two- or four-month period. The committee is also responsible for increasing the visibility of this unique program that provides private-sector experience for Foreign Commercial Service Officers.

WPDEC's long-term projects are the responsibility of the Special Projects Committee, which conceives, develops, approves and monitors activities with support of the Department of Commerce district office and other council committees, as appropriate. Examples of such projects include the Western Pennsylvania Trade Mission to the People's Republic of China, the "Intro-Export Mission" to Canada, and the Pennsylvania International Trade Conference, cosponsored with the Philadelphia District Export Council and Pennsylvania's Bureau of International Commerce.

TRADE ENHANCEMENT IN THE DELAWARE VALLEY

Jane A. Malloy and Paul L. McQuay

In 1986-87 Delaware County Community College (DCCC) received a Delaware Valley Trade Enhancement Grant from the U.S. Department of Education, Title VI, Part B. This provided the major impetus for DCCC's international thrust.

The project began with a needs survey of the Delaware County and Main Line areas. The response indicated that numerous companies expected to expand their international activities within the next five years, and that many wished to enhance their employees' knowledge and skills related to international business. Responses to a question addressing positions that might be available to two-year A.S. degree students in international business implied that positions were available in sales/marketing, exporting, traffic management, and internationalized documentation.

The key components of a community college international business program, according to the survey, included: introduction to international business, reading and preparing letters of credit, documentation, international marketing, relations with banks, and transportation. DCCC therefore created international business courses that included these competencies. Enrollment is expected to increase as the Delaware Valley continues to attract new international businesses and to expand its export capabilities.

To encourage enrollment and at the same time develop a partnership between education and business, courses were cosponsored by BDP International, Inc., Delaware County Chamber of Commerce, E.I. DuPont DeNemours & Co., Mellon Bank, Small Business Administration, Small Business Association of Delaware Valley, and the U.S. Department of Commerce.

Many activities were undertaken to internationalize the curriculum. These included consultation with an international education expert and an international trade breakfast to identify people for an advisory committee. The library ordered international materials as class references and resources for the local business community.

Appropriate international films were acquired, and several maps were donated to the College for classroom use.

The grant's central focus was to enhance export opportunities for businesses and industries in the Delaware Valley. As such, it was determined to reinforce DCCC's existing linkages with two institutions of higher learning in Taiwan. Hence the College developed a pilot model to enhance the balance of trade between Taiwan and the Delaware Valley, Pennsylvania. In May 1987 a DCCC delegation traveled to Taiwan to solidify and enhance the sister relationship between the College and National Yuen-Lin Institute of Technology, and to meet with several organizations that could assist small- and medium-sized businesses in expanding their trade activities.

A meeting was held with several representatives from the China External Trade Development Council to determine how to assist them in meeting their import requirements. It was suggested that DCCC help this group meet with industries in the Delaware Valley.

In addition to activities under the Department of Education grant, the College has:

- Established an Office for International Studies;
- Joined two international education consortiums;
- Hosted two visiting faculty members from Taiwan;
- Invited two faculty members from the People's Republic of China to study at the college;
- Developed a faculty exchange with a college in Prague, Czechoslovakia;
- Participated in two study abroad programs for students, one in London and the other in Kostanz, Germany;
- Established a Center for Italian Studies;
- Established an International Study Group.

DCCC President Richard DeCosmo summarized the past two years' activities when he stated, "I never realized the Delaware Valley was so ready for an international experience until I saw the positive, warm response from our community. I have been overwhelmed by the receptivity of our students, faculty, administration, and our businesses and industries."

THE CHALLENGE OF TECHNOLOGY IN INTERNATIONAL EDUCATION

Sister Maria Consuelo Sparks

Fundamental changes in technology, economics, and political realities that have overtaken our world have presented educators with major challenges. Not only must they apply the latest technological advances to higher education, but they must also realize that the world for which we are preparing students has become an international one, where issues once considered the domain of individual nations have acquired global dimensions.

It is especially in education that we must respond to new worldwide realities. This has meant adapting new technology to our teaching strategies at the same time that we have tried to prepare students to become knowledgeable about international issues. Undergraduate education, in particular, should be concerned with training citizens about the world and developing specialists in the growing international technology.

Immaculata College, a liberal arts college in Pennsylvania, responded through the use of ICONS (International Communication and Negotiation Simulation), a computer-assisted instructional program combining computer telecommunication with international studies, which can be easily adapted to existing college programs and courses. ICONS is a teleconferencing project that enables international studies and foreign language students to "talk" to students on other campuses, both in the United States and abroad, by typing messages on their computer keyboards. The messages travel via telephone line to a central sorting and storage area at the University of Maryland, College Park, where they wait for other individuals (in this case, anywhere from ten to twenty teams representing various nations) to call for them.

ICONS also combines both the features of a human-machine simulation, with decision makers interacting with a computer-based model, and a free–form "game," where players attempt to capture the complexity and subtlety of international political issues through the use of scenarios focusing on future policy problems. This simulation also involves "political gaming," an approach that allows students to interact in an environment approximating a real-world, decision-making situation.

To illustrate how ICONS works, imagine a large conference room in which international meetings take place. Students may attend any conference from the offices or computer centers in their own colleges and universities by using a computer, a modem, telecommunication software, and an available telephone line. The conference-goers may enter and leave the room at their convenience by reading (downloading) or posting (uploading) messages on a bulletin board in the conference room through the regular on-line mail. These messages are prepared in advance on a word processor, in the native language of the country that the team is representing.

The boards are highly organized, with messages sorted according to issues, date, recipient and sender. Conference participants read the messages intended for their nation. By receiving and sending messages, exchanging ideas, or lobbying for a position, the country teams learn to appreciate the perspectives of other countries on global issues such as monetary crises, balance of trade, the international implications of human-rights abuses and terrorism, arms control, and world peace. This exchange instills a greater understanding of the complexities and subtleties of international negotiations. Opposing sides negotiate and eventually compromise to achieve a common goal. Students on the same team must learn to cooperate with each other as well as work together to balance long- and short-term goals. The real-time on-line conference is used to finalize agreements and reach decisions on the international issues discussed during the previous weeks.

Educational telecommunication enables students to make frequent electronic field trips to visit people and places otherwise inaccessible because of time and money. It has the distinct advantage of allowing students from different campuses in the United States and abroad to exchange ideas about international issues and therefore to gain new perspectives on their own thinking. By learning other nations' positions and situations, they pick up information they might not have otherwise considered.

Students experience the convenience of on-line network systems and become familiar with communication skills at an international level without having to leave their campuses. They can answer on-

line messages promptly and efficiently, and be put in touch with students in North or South America, Europe, and Asia in a matter of seconds. An additional valuable feature of ICONS is that it presents practical applications for a student's particular discipline, be it history, political science, economics, or a modern foreign language.

The language component of ICONS is an extension of the model for implementing a computer-assisted simulation mode of language instruction. The rationale is that international diplomatic negotiations automatically entail translation from any number of foreign languages. English, French, German, Japanese, Russian, and Spanish are used in the context of international simulation exercises stressing the development of translation skills. Messages are sent in the native language of the nation being addressed; advanced foreign language students prepare translations for the foreign policy members of the team. If an educational institution does not have the translation capability for a particular language, teams have recourse to a central translation bank from which they may receive already translated messages.

From our experience at Immaculata College, we have found that computer telecommunication can significantly improve the quality of student writing and spelling because of the motivation provided by a real-world audience. Students are very careful about the quality of the messages they send; on occasion our students will find a message from a "foreign" team apologizing for a "sloppy" message and supplying a retransmitted corrected one. Another advantage for foreign language students is that most of them who are not interested in teaching careers tend towards some aspect of government such as foreign affairs. For this reason, international diplomacy is a natural environment for computer technology to assist language instruction.

Thus in response to the challenges of technology and globalism, we have attempted to infuse the undergraduate liberal arts curriculum with a sense of the international, using electronic technology to interconnect the world of higher education and the real world in meaningful ways.

PROJECT COPIAS

John R. Johnson and Jiang Zhi

Project COPIAS (China Outreach Project in Indiana Area Schools) is a cooperative venture with Indiana University of Pennsylvania (IUP), Indiana Junior High School, and Shanghai Teachers University in China. It was initiated in the spring of 1985 by three IUP faculty members, and won immediate enthusiastic support from Shanghai Teachers University and Shanghai International Studies University. The project has provided a solid basis and commitment for a coordinated effort to enhance the language and culture opportunities of youth in the Indiana area schools.

The major purposes of Project COPIAS are (1) to provide students with the opportunity to learn to understand standard, spoken Chinese and converse about their own lives and surroundings, including classroom communications; and (2) to develop a concrete understanding of contemporary culture and society of China through participating in a series of cultural instructional units illustrating assumptions, values, attitudes, and symbols in Chinese culture.

The Curriculum Guide

A curriculum guide comprised of sixty lessons was produced by Mr. Jiang Zhi, a visiting professor from Shanghai Teachers University. It is largely based on two years of classroom teaching at the University School of IUP and Indiana Junior High School. At the University School, Chinese Language and Culture was taught as one of the major parts of social studies for both fifth and sixth graders; at Indiana Junior High School, Chinese for Fun was offered as a foreign language elective for both eighth and ninth grade students. The suggested lesson plans included in the curriculum guide have all been piloted by Jiang Zhi and revised to reflect evaluations.

To make the subject more interesting and meaningful, great efforts have been made to integrate other school subjects such as geography, science, and reading into the curriculum of both courses. Learners are always encouraged to gain a concrete understanding of topics in Chinese culture through active involvement in cultural activities, and to use authentic Chinese artifacts and materials.

They are also assisted in writing to peer pen-pals in Chinese schools, developing personal contacts for learning the language and culture. In classroom teaching, the cultural content is closely related to learning the target language. In language learning itself, emphasis is placed on intensive listening prior to oral articulation so that students will accurately pronounce all Chinese sounds in meaningful conversation.

Telecommunications

John Johnson, IUP's College of Education Coordinator of Educational Computing, is spearheading the development of a computerized network of schools in China and America, so that students in the two countries can communicate with each other via telephones and computers, and eventually through visual means. In March 1988, after two years of experimentation and resolution of technical problems, the first successful two-way telecommunication transmission took place between IUP and Shanghai Teacher's University. The final and major stumbling block was overcome when visiting professor Zhang Shi Zheng, Chairperson of the Computer Science Department at Shanghai Teacher's University, came to IUP for a semester to work with John Johnson. A telephone signal amplifier was constructed from readily available parts and installed between the modem and the phone line to increase the strength of the carrier signal. With this in place, effective, low-cost communications can take place between school students in the United States and in China.

Any school or person who has access to a computer, modem, telephone line, and signal amplifier can participate in this type of communication. Messages can be prepared in advance on a word processor and stored on disk. Then when the phone call is placed, the file or files stored on disk can be transmitted in a very short time span, thus reducing long-distance phone charges.

This capability enables "electronic pen pals" to communicate student-to-student through the use of electronic mail. Motivation to learn another language and culture increases when the involvement is personal and the feedback and response immediate. Students in either country can begin to ask first-hand questions of each other regarding their customs, cultures, and personal life-styles. There develops a functional need to try to learn another person's

language in order to facilitate communication. This concept almost takes on the appearance of an "electronic immersion" experience, which will be available to more students than the select few who can afford to spend a year in another culture.

In the near future it will be possible to transmit still images that have been digitized by the computer from any video camera, using the same computer, modem, and telephone line. It is also now possible to purchase dedicated, stand-alone, still-image video phones for under $400. This means that pictures as well as words can be used, enhancing learning. For example, the image of a Chinese soup spoon can be transmitted to a student or class in the United States, and a whole dialogue can evolve around its use and the different customs of eating, including the fact that Chinese like to have their soup last because the warm liquid is considered an aid to digestion.

It is the sincere hope of all concerned with Project COPIAS that increased understanding of Chinese language and culture will be of lasting benefit to the students who participate, and that this small seed will be influential in helping spread increased understanding among all peoples in all nations.

A GLOBAL INFORMATION AND COMMUNICATION NETWORK

Wayne Jacoby

GEMNET, a global communications and information network, is a component of Global Education Motivators, Inc. (GEM), a non-profit educational organization established in 1981 by educators in the Philadelphia area. GEM's global education programs operate in schools throughout the United States and in foreign countries.

GEM was developed to promote education for life in a global society. In designing its programs for school use, GEMNET strives to: instill global responsibilities; develop leaders for America's role in world affairs; arouse the interest of U.S. students in diverse heritages; achieve foreign language proficiency to serve the nation's commercial and diplomatic needs; meet the challenges of a technological world; nurture positive attitudes towards people of other cultures as a way of advancing the cause of world peace; increase global literacy on a shrinking planet; help prepare over 47 million U.S. school children to function successfully in the 21st century.

Enrollment in GEMNET allows schools to become members of a worldwide communication exchange group that seeks to advance global learning, computer technology, friendship, and peace. Upon registration, each classroom teacher informs GEMNET of the subject, grade level, and communication medium, usually videotapes or electronic mail exchange. GEMNET creates a match with a teacher from another country who has similarly enrolled and been recorded in the GEMNET Worldwide Database of schools. Once connected, the teachers can phone, write, or use electronic mail for discussion of their mutual educational interests.

International Video Exchange

At the high school and elementary levels, each school generally exchanges two or three personally-made videos every year. Although GEMNET encourages schools to make each video bilingual, it is not mandatory. For example, a Pennsylvania high school may select a school in France as a partner. The Pennsylvania students can make half their video in English and half in French, and the French

students can do the same. Each group thus hears native pronunciation. The students are encouraged to show and describe life at their school and in their community and country. They select specific discussion topics according to their interests.

Elementary schools can either develop their own video material or they can follow the "Video Pals" format, a structured program for elementary schools presently matched with Japanese schools and based on the concept of television's "Mr. Rogers' Neighborhood." This program includes a training manual, video training tape, and an in-house workshop for teachers. Videotape conversion service is also provided.

On-Line Computer Services

These services provide electronic mail (E-Mail) exchange and databases for global education. All one needs is a computer (any brand) with a modem, communications software, a word processor and a telephone line. GEMNET provides a local phone number, and users can log-on to "global education with global connections." The procedure is simple. Using the word processor, students write their messages, taking time to rewrite and fine-tune their text. When the message is ready, the teacher dials the local phone number and connects with GEMNET's central computer. Once on-line the teacher goes through a security check and enters electronic mail. The message is then sent with a couple of keystrokes.

E-Mail is inexpensive and instantaneous. A teacher can send a one-page letter, prepared in advance, from Pennsylvania to England, for example, for less than 50 cents. It will take less than one minute. Countries in the same or nearby time zones can "chat" electronically because messages are sent and received within minutes. Usually E-Mail messages are held in the electronic mail box of the receiving party and are read when the person logs-on to his/her computer.

Databases

More than 25 databases are available via GEMNET, some of which are briefly described here. *The World Countries Database* pro-

vides encyclopedic information on 178 countries and territories. It lists 32 categories of facts including type of government, current leader, population, literacy rate, exports, imports, etc. This database is excellent for obtaining a listing of global information. *Global Data Resources* is a listing of up-to-date statistical data covering 150 variables for each country including birth and death rates, consumption of electricity, military expenditures, etc.

Global Information Network International (GIN-INT) was formerly called Interpress Third World News. It provides current news from Third World countries prepared by a staff of over 90 correspondents. "South-Scan" is a special category devoted to information from South Africa. Headquartered in Rome, GIN-INT is the only major news wire service providing the Third World viewpoint.

The *United Nations Information Network (UNINET)* provides on-line information from the United Nations system. All of the UN's daily press releases are uploaded daily. "Newsline" is a category offering mini-news items on major events in the UN plus background material. Of special interest to Model UN students and teachers and those involved in international law is the "Bibliographical Database on General Assembly Documents." Here each resolution is filed using its title and key words; on-line searching by title and/or key words will produce the title and number of the desired document.

The "*Global Issues Classroom,*" developed specifically for high schools, focuses on one global issue each month: human rights, disarmament, development, world trade, etc. Lessons contain review questions and activities for expansion of the topic. This database also includes a descriptive listing of books, pamphlets, magazines, reports and videos available from the United Nations system; free materials are emphasized.

GEMNET's Advantages in the Classroom

Good education relies upon motivated, enthusiastic learners. Experience with international communication proves that young peo-

ple can be inspired by social interaction with their peers. They frequently brush up on local and state history to tell their friends abroad how they live and how they came to be. It is far more important for them to be seen as having integrity by their friends than to impress a teacher by meeting demands.

GEMNET frees classes from total dependence upon interpreted, indirect sources of information about the world and how that world views them. After studying about other people and drawing some conclusions, students can test their views against those of peers from another culture. International communication develops a global perspective that transcends ethnocentricity. Commonly-held assumptions may be challenged. By reacting as a class, young people support each other in reevaluating their views based on reality. Further, international message-making requires a variety of skills, not just verbal. Photography, videography, sound-recording, lively personality, technical skills—the entire panoply of communication requirements gives nearly all students an opportunity to be involved in international studies. The fact that the messages can contain everything from drama to sports to sciences allows for the inclusion of students with varying interests.

Foreign language students can make practical use of their skills outside the language classroom by translating for other classes and levels in a school district. For example, seniors can teach fifth graders German phrases for their exchange with fifth graders in Germany. When messages from partners raise issues demanding expertise not available in the receiving classroom, it becomes natural to seek information and advice from other knowledgeable classes or teachers.

Not to be overlooked is the opportunity to work with modern technology. It transcends the content and provides actual experience in using data access, research and communication skills essential for careers and lifestyles of the 21st century.

SECTION 6

A Blueprint for An Internationally Competent Commonwealth

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It is apparent from a reading of the previous sections that there is in Pennsylvania an abundance of international knowledge and skills, as well as a genuine interest in creating an internationally competent Commonwealth. This section contains a blueprint for action—an agenda for developing international competencies in all sectors of Pennsylvania.

The ideas presented here are part of a series of possible constructive approaches developed through discussions at the October 1987 International Education Conference held at the Pennsylvania Department of Education and through the ongoing meetings and dialogue that have taken place since the conference. The blueprint discussed in this section provides for the processes through which the following seven ends can be achieved:

1. Identification and further enhancement of the rich and varied international knowledge base that exists in Pennsylvania institutions of higher education.
2. The creation of structural arrangements that increase the awareness in business, labor, and government of the resources for international knowledge in higher education. There also needs to be an efficient and effective way for business, labor and government to access and utilize these resources.
3. The continued development and support of collaborative structures that allow universities and colleges to share their international knowledge with basic education faculty members and administrators.
4. A mechanism for improved statewide flow of communication and coordination of effort in terms of resources for international knowledge.
5. Continued federal and state support for international education efforts.
6. The encouragement of innovation and creativity among all sectors concerned with international education and the sharing of successes and problems.
7. The strengthening of the Pennsylvania Partnership for International Competence.

Described below are the parts of the blueprint that will help accomplish these objectives. First there needs to be an updated, centralized, computerized data base of higher education resource personnel for international education knowledge. Among the types of higher education expertise contained in this data base would be:

- Experts on the culture and history of specified areas, identified by nation and region.
- People who are competent in specified written and spoken languages, identified by language.
- Authorities on the marketing distribution system, business practices and legalities, business negotiation styles, and consumer preferences of specified nations, listed by nation.
- A compilation of places were Pennsylvania institutions of higher education have exchange programs, agreements, and contracts, identified by nation and higher education institution.
- Experts on specific products or technologies in areas outside of the United States, listed by specialty.
- Authorities in Pennsylvania on export policies and procedures, listed by higher education institution.
- An international education contact person on every higher education campus in Pennsylvania, listed by campus.

This computerized data base would need to be continually updated and a system of easy access to the data developed. For example, it might be possible to tie this data base into the statewide library access system. During the 1970s there was an effort to create a less sophisticated international knowledge base on the campuses of four large universities in Pennsylvania. On the whole, however, this system has not been updated nor the four data bases joined together. The system being proposed is larger, more sophisticated and better coordinated, allowing access to the resources on all campuses.

A number of services and programs can be provided using this computerized data base. One possibility is the creation of the Pennsylvania Ambassador Program. Under this program, experts on a particular nation and articulate in that nation's language would make a valuable contribution by helping to meet trade missions that visit Pennsylvania. Such a program would provide important assistance

to the state, impress trade missions with the international skills and abilities of Pennsylvanians, and provide university experts with the opportunity to increase their contacts.

In addition, the ambassadors could work closely with the Governor's Office and the Economic Development Partnership in the recruitment of foreign companies to invest and establish operations in Pennsylvania. Once the firms are established, the ambassadors could serve as consultants and facilitators to the company and community, helping each to adjust to the other. Also, a number of specified experts from the computerized listings would be willing to provide a free initial consultation to Pennsylvania businesses considering entering a foreign market. After the initial consultation, the expert and the company could make appropriate arrangements for any future work. There might be times, because of jobs resulting from increased exports, that economic development funds could be used for additional consultation.

Another important part of the blueprint for developing international skills would be the establishment of the Academy for International Education within the Department of Education. This Academy would be similar to the concept of the Principal's Academy created under the leadership of Secretary of Education, Thomas Gilhool. In the first phase, groups of thirty teachers and administrators from schools throughout Pennsylvania would spend two to three days in Harrisburg or at one of the intermediate unit facilities discussing concepts, ideas and curricular means to make international education a reality in the schools of the Commonwealth.

The faculty of the Academy would consist of teaching colleagues from both basic and higher education who have experience and expertise in international education. It is crucial that the academy have access to the resources of the state's centers of excellence in area studies and international research. Business leaders involved in international commerce would also be invited to serve as faculty. Each Academy session would evolve new approaches and curriculum units. The Bureau of Curriculum and Instruction within the Department of Education would work closely with the Academy in the development of curriculum designs and materials. Participants would also be made aware of resource centers and programs in various areas of international education.

Follow-up to the Academy's program will, in part, come from the existing Department of Education/Pennsylvania Council for International Education Collaboratives described in Bill Vocke's essay in section five. In any areas of the state where there is no higher education/basic education collaborative, an intensive effort will be made to form one. Follow-up support will also come from the efforts of professional organizations, such as the work of the Pennsylvania geographers, which Ruth Shirey described in her article.

Pennsylvania is fortunate to have seven federally supported National Resource Centers. The outreach programs of these centers provide another valuable resource for Academy follow-up. It is important to note that the specialized knowledge and research coming from such centers is vital to the development of international competencies. In those world areas for which there is no Pennsylvania-based area studies center, the partnership members—government, education, business and labor—need to pool their resources and close the gaps. Consideration also needs to be given to how the work of the Academy and follow-up support system can be coordinated with the teacher induction requirements of Act 178 and school district in-service training.

Once the first phase of the Academy is on strong ground, it will be appropriate to add an additional dimension. This phase would bring together representatives of business, labor and government for a program of continuing education on international competencies imperative for economic success. The Academy sessions can be adjusted for small or large businesses. The design of the sessions will be developed in consultation with business and labor. If the education phase and the business/labor phase of the Academy are held at the same location, participants in both can attend several shared presentations and discussions. Out of this sharing will emerge a stronger Pennsylvania Partnership for International Competence.

The Academy needs to include a presentation outlining how best to utilize the enormous potential of communication technologies as a resource for international education. These technologies offer unique opportunities for both educators and business people. The last three articles of section five describe the potential in such areas as electronic mail, computer simulations, and video exchanges.

The development of language skills in the Commonwealth is a real concern for both educators and business leaders. Many critical languages are either not taught or, in the case of Japanese and Chinese, are each taught in only two of the 501 school districts. The use of international students to help teach critical languages is described in Ron Gougher's article in section five. The success of this approach merits its expansion on college campuses and in the schools. Increased consideration should also be given to the use of communication technologies in the teaching of languages. For example, by use of satellite communication, a teacher in Japan can teach a Pennsylvania class Japanese and a Pennsylvania teacher can teach a Japanese class English. Students can hear native speakers if schools use a satellite dish to pick up television programs from other nations, such as Mexico. Over seventy languages are spoken in Pennsylvania, a state rich in ethnic traditions. These ethnic language skills need to be shared with the youth of Pennsylvania through programs in the schools.

The Secretary of Education has begun a process, which needs to be fully supported, of examining language pedagogy in Pennsylvania and exploring different alternatives to the teaching of foreign languages in our schools. The traditional class-period approach leaves much to be desired in terms of results. During the summer of 1988, the Department of Education has supported a variety of intensive language experiences in Pennsylvania. What is learned from these summer programs can be integrated into the academic-year programs and utilized in future summer experiences.

Certainly one of the most substantive and meaningful ways for people to learn about others is to have the opportunity to live abroad for a period of time. The Pennsylvania Department of Education, working in conjunction with schools, needs to expand the exchange opportunities for teachers. Prospective teachers should also be given opportunities to study or student-teach abroad. The article in section five describing Lock Haven University's program for student teachers offers an excellent model. Exchange opportunities also implies that teachers from abroad would come to Pennsylvania. Such teachers contribute to the internationalization of our schools and can be of great assistance in the teaching of such critical languages as Arabic, Japanese, and Chinese.

Opportunities to study and live abroad are also important for business administration students and for middle-level managers of American companies. Pennsylvania firms can productively copy the practice of some Japanese companies of sending employees to study overseas, often in a university or research institute setting. The Japanese have used such experiences to develop the international knowledge base and competence of selected rising managers. Pennsylvania institutions of higher education, with their numerous contacts around the world, could help companies arrange for such opportunities.

It is important to establish an international education advisory committee to assist in the development and implementation of the blueprint discussed in this section. This advisory committee should include representation from all sectors of the Pennsylvania Partnership for International Competence.

In summary, the editors of this book have presented a series of proposals that constitute a blueprint for an internationally competent Commonwealth. This blueprint is presented with the realization that there are many other excellent ideas for increasing international competence and that the proposals presented here may very well need further refinement. Throughout the 1980s, reports issued by one national organization after another—including the National Governors Association and the Council of Chief State School Officers—have stated the importance of international education and the need for state action.

Pennsylvania is blessed with a strong higher education infrastructure in terms of its international knowledge base; with school systems desirous of educating students with competencies to succeed today and into the next century; and with business, labor and political leaders who have the vision and will to make sure that Pennsylvania remains a force in world markets. Governor Robert Casey has wisely spoken of the need to form partnerships to meet the complex and changing problems of our times. The numerous articles and commentaries in this book also point out the constructive and dynamic power of partnerships. It is through partnership that Pennsylvania will become an internationally competent Commonwealth and regain its position as "Workshop for the World."

APPENDIX

A Selected Guide for Additional Resources On International Education Curriculum Development and Partnerships

The following organizations, located outside of Pennsylvania, are additional sources of information for those interested in internationalizing curricula and initiating activities in international studies and exchanges:

The American Forum
45 John Street
Suite 1200
New York, NY 10038
[Merger of Global Perspectives in Education
and the National Council on Foreign Language
and International Studies]

Association of International Education Administrators
International Programs
P.O. Drawer A, University of Texas
Austin, TX 78713

The Center for Teaching International Relations (CTIR)
University of Denver
Denver, CO 80208

The Citizen Network for Foreign Affairs
1616 H Street, N.W.
Washington, D.C. 20006

Coalition for the Advancement of Foreign
Languages and International Studies
1 Dupont Circle
Washington, D.C. 20036

Consortium for International Cooperation in Higher Education
Room 710
1 Dupont Circle
Washington, D.C. 20036

Joint National Committee for Languages
20 F Street, N.W.
Washington, D.C. 20001

The Liaison Group for International
Educational Exchange
1825 Eye Street, N.W.
Washington, D.C. 20006

Midwest Universities Consortium for
International Activities
134 Derby Hall
154 North Oval Mall
Columbus, OH 43210

National Association of Foreign Student Advisors
1860 19th Street
Washington, D.C. 20009

The National Foreign Language Center
1619 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Stanford Program on International and
Cross-Cultural Education (SPICE)
200 Lou Henry Hoover Building
Stanford University
Stanford, CA 94305-6012

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C. Craig Willis, President, Lock Haven University, Lock Haven, PA 17445.

Harris Wofford, Secretary of Labor and Industry, Pennsylvania Department of Labor and Industry, Harrisburg, PA 17120.

Ellen Wylie, Director of History Programs, The Philadelphia Partnership for Education, 400 Suburban Station Building, 1617 John F. Kennedy Boulevard, Philadelphia, PA 19103.

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